
A Documentation of Two- and Three-Dimensional Shock-Separated Turbulent Boundary Layers

J. D. Brown, J. L. Brown, and M. I. Kussoy

(NASA-TM-101008) A DOCUMENTATION OF TWO-
AND THREE-DIMENSIONAL SHOCK-SEPARATED
TURBULENT BOUNDARY LAYERS (NASA) 105 p

CSCL 20D

N88-27519

G3/34 Unclas
0157038

July 1988



National Aeronautics and
Space Administration

A Documentation of Two- and Three-Dimensional Shock-Separated Turbulent Boundary Layers

J. D. Brown

J. L. Brown

M. I. Kussoy, Ames Research Center, Moffett Field, California

July 1988



National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, California 94035

A Documentation of Two- and Three-Dimensional Shock-Separated Turbulent Boundary Layers

J. D. Brown,* J. L. Brown, and M. I. Kussoy

Ames Research Center

SUMMARY

A shock-related separation of a turbulent boundary layer has been studied and documented. The flow was that of an axisymmetric turbulent boundary layer over a 5.02-cm-diam cylinder that was aligned with the wind tunnel axis. The boundary layer was compressed by a 30° half-angle conical flare, with the cone axis inclined at an angle α to the cylinder axis. Nominal test conditions were $P_t = 1.7$ atm and $M_\infty = 2.85$. Measurements were confined to the upper-symmetry, $\phi = 0^\circ$, plane. Data are presented for the cases of alpha equal to 0°, 5°, and 10° and include mean surface pressures, streamwise and normal mean velocities, kinematic turbulent stresses and kinetic energies, as well as reverse-flow intermittencies. All data are given in tabular form; pressures, streamwise velocities, turbulent shear stresses, and kinetic energies are also presented graphically.

INTRODUCTION

Interactions between shock waves and turbulent boundary layers occur in many aerodynamic flows. In most cases the wall layer separates as it encounters the strong adverse pressure gradient imposed by the shock; this can have a profound effect on lift or on control-surface performance. Therefore, the interest in predicting such fluid behavior is considerable. The past decade has seen significant advances in computational fluid dynamics (CFD). Still, the ability to predict details of separating turbulent flows is far below that needed for design purposes. Progress in turbulence modeling affects the rate of development of CFD, and sound experiments are crucial to the creation of improved models, as they provide valuable physical insight and a validation base for future computations.

This report documents the study of a complex compressible turbulent flow which involved shock boundary-layer interaction, three-dimensionality, and massive separation. The geometry, however, was basic enough that Navier-Stokes calculations of the flow could be made using current numerical-grid-generating capabilities. The measurement of turbulence quantities was given special emphasis. The test configuration was that of a conical flare mounted on a streamwise cylinder. The flow was made three dimensional by inclining the flare at an angle to the cylinder axis. For each value of α , the flow was first examined by shadowgraph and oil-flow visualization. Static wall pressure measurements were then taken, both on the cylinder and flare, in the upper plane of symmetry, $\phi = 0^\circ$. Finally, detailed velocity surveys were made throughout that plane using a two-component laser Doppler velocimeter (LDV). The study was focused on the plane of symmetry where simplifying assumptions could be made regarding the azimuthal (ϕ) component of velocity. This component could not be acquired directly since the two-channel velocimeter was configured to measure streamwise and vertical velocities.

The flows documented herein and associated computations have been presented previously, in various aspects, in references 1–6. However, this is the first publication of the tabulated data, and is intended to facilitate the comparison of these data with other computed or measured results. Reference 1 gives an extensive discussion of the experimental setup and the background literature.

* NRC Research Associate.

NOMENCLATURE

Geometric Parameters

x, y, ϕ	streamwise, vertical, azimuthal coordinate
z	transverse coordinate, normal to x - y plane
α	flare angle of inclination
λ	laser wavelength

Flow Variables

u, v, w	instantaneous x, y, ϕ velocity
$\bar{u}, \bar{v}, \bar{w}$	mean x, y, ϕ velocity
u', v', w'	fluctuation x, y, ϕ velocity
p	wall pressure
T	temperature
ν	kinematic viscosity
C_f	skin friction coefficient
Re	Reynolds number
M	Mach number
δ	boundary layer thickness ($0.99 U_\infty$)
γ	ratio of specific heats, (7/5 for air)
R_y	$\equiv y U_e / \nu_e$
k	turbulent kinetic energy (TKE)

Subscripts and Superscripts

∞	value in the free stream
0	value in the undisturbed (upstream) boundary layer
t	initial total condition
e	value at the boundary layer edge
i, j	i^{th}, j^{th} component
$\overline{(\cdot)}$	ensemble average

Tables

U2	normal (x) Reynolds stress
V2	normal (y) Reynolds stress
UV	shear (x - y) Reynolds stress

U2V2	turbulent kinetic energy (two-dimensional, same as k)
GMINUS	reverse-flow intermittency

DESCRIPTION OF EXPERIMENTAL APPARATUS

The experiment was conducted in the High Reynolds Number Facility—Channel I (HRC-I) of the NASA Ames Research Center at Moffett Field, CA. This blow-down tunnel, shown schematically in figure 1, employs interchangeable test sections and nozzles to produce a variety of transonic and supersonic flows. The total pressure has an operational range of 0.24–10 atmospheres, while total temperature is fixed at a nominal value of 265 K.

For the present study, a rectangular supersonic nozzle, connected to a 25.4-cm-wide by 38.1-cm-high test section, provided a nominal free-stream Mach number of 2.85. The total pressure was 1.7 atm, which resulted in a Reynolds number of 16×10^6 per meter. Under these conditions, useful run times ranged from 12–13 minutes. After that it was necessary to evacuate the large vacuum spheres into which the tunnel air flows through the diffuser. Both sidewalls of the tunnel test section were fitted with rectangular windows, each 30.7 cm wide by 38.2 cm high. This type of optical access is necessary for the application of shadowgraph photography and forward-scatter laser velocimetry.

Model

Figure 2 illustrates the general model configuration, a flare mounted on a sting-supported cylinder. The coordinate system that was used and the flare inclination angle, α , are depicted. The x -coordinate direction runs parallel to the cylinder axis, and not along the flare surface. However, the value of y is always measured normal to the x axis from the model surface. The z -coordinate direction is normal to the x - y plane in accordance with a right-handed system. It is discussed most often in connection with optical systems used in the experiment. The equations $\phi = 0^\circ$ and $z = 0$, $y \geq 0$ describe identical half-planes.

The 5.08-cm-diam cylinder, constructed from stainless steel, was aligned with the tunnel axis. The cusped nose at the upstream end of the cylinder was specially designed to minimize the strength of shock waves produced there. According to flow visualization, pressure, and velocity data, the reflections of these waves from the tunnel walls had no measurable effect within the studied region. The cylinder was segmented, with sections varying in length and instrumentation. The inception length from the nose tip to the flare, hence the Reynolds number, could thus be varied, as could the type of surface measurement made.

For the present experiment, the inception length was kept constant at approximately 1 m. Mean static pressure measurements were made using a cylinder section with static ports located every 0.5 cm along the $\phi = 0^\circ$ ray. A different section, instrumented with six high-frequency-response pressure transducers spaced at 0.5-cm intervals on the same ray, was employed during velocity measurements. Instantaneous pressure signals obtained from these transducers were used to conditionally sample velocity and turbulence data (ref. 3).

The flare models were aluminum, and consisted of a 30° half-angle cone, inclined to the cylinder at angle α , and joined with a cylindrical afterbody. Models were constructed for the axisymmetric case, $\alpha = 0^\circ$, and the three-dimensional geometries, $\alpha = 2.5^\circ, 5^\circ, 10^\circ, 15^\circ, 20^\circ$, and 23° . A generic flare-afterbody detail is shown in figure 3. Each flare had a different surface length between the compression and expansions corners in the $\phi = 0^\circ$ plane: 6.0 cm for the axisymmetric flare, 7.0 cm for the 5° model, and 6.7 cm for $\alpha = 10^\circ$. The corresponding values of x at the expansion corners were 5.196 cm for $\alpha = 0^\circ$, 5.734 cm for 5° , and 5.132 cm for 10° . The flares were instrumented with static pressure ports. For $\alpha = 0^\circ$ and 5° , taps were located every

0.5 cm between the cylinder and the afterbody. On the other models, the holes were spaced irregularly because the earlier method of construction could not accommodate the close 0.5-cm spacing.

Mean Pressure Data Acquisition

Mean surface pressures were obtained using strain-gage differential pressure transducers (Kulite Semiconductor BM-1000) connected pneumatically, with vinyl and stainless steel tubing, to surface pressure taps on the cylinder and flares. The taps had a 0.508-mm diameter on the surface, and 1.07 mm beneath the surface, where the stainless tubing was fit. The small analog voltages output from the transducers were transferred to a Beckman model 210 data processing and recording system. There the voltages were amplified, converted to binary coded decimal numbers, and recorded on 7-track magnetic tape. Data could be recorded either at preset intervals or upon command.

Velocity Data Acquisition

A 4-W argon ion laser (item 1 in fig. 4) provided a blue-green beam consisting of ten distinct wavelengths in the range $450.0 \text{ nm} < \lambda < 529.0 \text{ nm}$. As the 488.0-nm (blue) and 514.5-nm (green) lines were the most powerful, they were used for measurements. A telescopic lens (2) focused the beams at the crossover region (17) in the test section. A dispersion prism (3) separated the multicolored ray into 10 distinct beams which were reflected by mirrors up (4) and over (5) the laser where they continued to diverge while traveling to the opposite end of the laser cavity. At that point the 514.5-nm and 488.0-nm lines reflected off separately-adjustable mirrors, (6) and (7), and exited from the cavity. They travelled vertically, parallel to one another, and entered the cylindrical optics tube. The green beam entered along the tube axis, and the blue beam entered 25 mm off-axis. The remaining wavelengths were blocked off at the laser cavity exit, and were not used.

Figure 5 details the components of the optics tube. Polarization of the green beam could be adjusted with the half-wave plate retarder (8) to provide optimum signal quality. The equal-path-length beam splitter (9) divided a single on-axis beam symmetrically, with the two resultant beams separated by 50 mm. These beams were as close as possible to equal intensity, depending on the polarization of the incident beam. The blue line was brought on-axis by a centering prism (10), and split in the same manner as the green. The blue beam splitter was rotated 90° from the green to produce beam pairs contained in perpendicular vertical planes. One beam in each pair was frequency shifted by a Bragg cell (11), while the two remaining beams passed through glass columns (12) to equalize the optical path length. Wedge prisms (13) corrected misalignment that resulted from Bragg shifting. Two pairs of rhomboid prisms (14) reduced the separation of each beam pair from 50 mm to 22 mm before the four rays passed through a 750-mm focal length lens (15), and reflected off a plane mirror (16) into the tunnel test section.

Referring again to figure 4, the four beams intersected to form the probe volume (17). Light scattered from this region by small seed particles in the flow, was collected by a pair of lenses (18), and focussed onto 0.64-mm-diam pinhole apertures (20) above each of two photomultiplier tubes (22). Adjustable mirrors (19) allowed fine positioning of the focussed light. The photomultipliers (PMTs) were housed in separate steel towers which were positioned close to the optical axis on either side of it. Since both blue and green light were scattered from the probe volume, narrow band pass filters (21) were used to ensure that only one component of velocity, i.e., one color, was detected by each PMT. The photomultipliers were powered by high-voltage DC sources (Pacific Precision Instruments model 204).

The signal from each PMT was amplified (Avantek UAA-1132B), filtered (Telonic Berkeley TLA 57-3AA1), and processed with a Thermal Systems Incorporated (TSI) 1990 series counter-type signal processor. Processing included further amplification and filtering, testing for validity, and converting the analog input to a 16-bit binary word representing a Doppler period. The TSI counters were joined together with interface logic

designed at NASA Ames. The interface tested whether valid realizations on the two counters were generated by the same particle. Only those data that passed this test were recorded.

Small light-scattering (seed) particles in the flow were generated by a system designed at NASA (ref. 7). A solution of $0.5 - \mu\text{m}$ polystyrene spheres in alcohol was atomized by a high pressure air jet at three locations along a vertical rod inserted in the stagnation chamber (fig. 6). The alcohol would evaporate, leaving the solid spheres suspended in air. They then dispersed within the slow-moving fluid, and were carried downstream.

The entire LDV system, except for the seeder and signal processing electronics, was mounted on a carriage beneath the wind tunnel. The carriage could be moved in the streamwise, transverse, and vertical directions, thus allowing the probe volume to be positioned freely throughout the test section. Vertical motion was effected by a stepper motor (Supply Electric M112-FJ12E) connected through a 60:1 gear reduction box. The combination allowed accurate movement over distances as small as 0.025 mm. While the measurements were being made, the motor was controlled remotely with a Superior Electric Slo-Syn Preset Indexer.

Data Analysis

The mean pressure data recorded on the Beckman 210 were analyzed on a DEC PDP 11/44 multiuser system. The PDP 11/34 stand-alone that was used to acquire LDV data was also used for the preliminary analysis. The LDV data files were created and transferred to a Digital VAX 11/780 superminicomputer for further analysis and plotting.

EXPERIMENTAL PROCEDURE

This section describes step-by-step procedures used for the acquisition of pressure and LDV data.

Mean Pressure Data

Each data run was preceded by a calibration of the pressure transducers. The test section pressure was statically set to several levels between the expected wall-pressure extremes, based on p_t , M_∞ , and α . The output of the transducers and the absolute pressure were recorded at each level. Since the differential transducers were referenced to atmosphere, the barometric pressure was also recorded, and a subsequent correction was made if necessary. A linear least-squares curve fit to the calibration data assigned a slope ($\Delta \text{volts}/\Delta \text{pressure}$) and intercept (volts at zero pressure) to each pressure cell. The data never varied by more than 1% from the linear fits. The constants obtained for a given cell from separate calibrations differed by a maximum of 5%.

Pressure data were obtained immediately following static calibration. Individual blocks of data were recorded at random times throughout the runs which lasted 10 minutes on average. The stagnation pressure remained constant to within 1% for all runs.

Velocity Data

Items 1–16 in figures 4 and 5 constituted the transmitting, or sending, optics. They determined the location, quality, and size characteristics of the probe volume. As mentioned previously, the telescopic lens at the laser exit was used to place the minimum cross section, or “waist,” of each beam at the crossover point. This adjustment was made only once, during initial LDV set-up. Orientations of the Bragg cells and polarization rotators independently affected the level and balance of light intensity within each beam pair. The maximum achievable output with equal intensity, determined visually while projecting both rays of a given pair onto paper, was provided at the outset of measurements. Subsequently, settings were changed only on a couple of occasions, when one or both beam splitters were moved.

The accuracy with which the two beams of each color cross (intracolor), and the extent to which the measurement volumes for the two colors overlap (intercolor) could profoundly affect data quality and maximum obtainable data rate. Misalignment in any of the transmitting optics between and including the laser and wedge prisms could degrade one or both. The crossings were examined by expanding the probe volume at its minimum cross section, through a microscope objective, onto a sheet of paper attached to the receiving side window. A good four-beam intersection yielded a single blue-green dot, approximately 1 cm in diameter, whose position did not change significantly when some of the incoming beams were blocked. Intracolor misalignment was normally correctable by adjusting the wedge prisms for that particular line, while overlap of the two colors was typically improved using mirrors 6 and 7 shown in figure 4. The beam crossings were examined and optimized each time a new flare was installed. Beyond that, they were checked only when the data rate or signal quality dropped markedly without obvious cause, which rarely occurred.

After the four beams were focussed on and crossing in the same region of space, the probe volume was positioned in the symmetry plane. This was done by moving the LDV carriage back and forth in the z -direction until the size of the intersection region was minimized as seen on a sheet of paper contained in that plane. Based on repeated trials, the accuracy of the resulting zero z -location was within ± 1 mm.

The green and blue fringes were oriented at $\pm 45^\circ$ to the tunnel axis, to measure the $u + v$ and $u - v$ components of velocity respectively. These angles and the fringe spacing for each color were checked once the probe volume was correctly positioned. Early in the test, fringe inclination and spacing were checked daily. They showed variations of less than 1%, a level attributable to measurement error. Subsequently, they were examined only when the transmitting optics were adjusted.

To optimize the Doppler signal level and signal-to-noise ratio, the probe volume image was focussed onto pinhole apertures directly above the photomultiplier tubes. A light-scattering object was placed in the $z = 0$ plane while the lenses, mirrors, and the apertures, all integral parts of the PMT housing, were adjusted until the beam crossing image appeared centered and focussed on the pinhole. For fine tuning, the test section pressure was lowered to vacuum level, and seed particles were introduced. The direct amplified output of each PMT was then observed on an oscilloscope while adjustments of the mirrors, shown as item 19 in figure 4, were made.

The alignment of the receiving optics was checked and usually modified whenever the transmitting optics were adjusted. It was also the first source investigated, and often the cause, when signal quality or data rate dropped noticeably from one run to another. The collection optics were found to be more vulnerable to tunnel vibrations and other disturbances than were the sending optics, although both maintained their alignments relatively well.

A 0.33-mm-diam hole in a square piece of copper-shim stock served as the aforementioned scattering object. The center of the probe volume was considered focussed on the hole when all four beams were visible and at peak intensity on a surface behind the copper square. That location could be fixed to within $\pm .05$ mm in both the x and y directions.

In preparation for taking data, the laser was set for 30 amps current, yielding 1.0–1.4 W output on all lines, and a 40-MHz Bragg shift was applied to each beam pair. The photomultiplier tubes were left unpowered until just before the run to avoid possible damage. The test section windows were cleaned, and the probe volume was moved to its initial measurement position. To establish the vertical zero position, the beams were lowered below the model surface, and then raised slowly until all four could be seen on the opposite window. Several repetitions of the process showed the visual zero location to be no more than 0.07 mm above the actual surface.

Prior to data acquisition, a brief blowdown would be made with the beam crossing in the free stream and the seeder on. This was done to set the signal-processor gain levels. The filtered output of each counter was monitored on an oscilloscope while its gain was slowly increased. When electronic noise began to appear, the

gain was lowered slightly and fixed. In certain cases, for instance, measuring near surfaces or shock waves where strong glare was generated, the gain was lowered more.

Data acquisition was controlled from a DECwriter terminal connected to the PDP 11/34, which produced immediate hard copy of information pertaining to each measurement location. Separate oscilloscopes were used to monitor PMT signals and the filtered output of each counter. The former graphically indicated the quality of the intracolor beam crossings, while the latter were useful in determining the free-stream location for a given profile. Vertical positioning was controlled by the stepper motor indexer and verified with a dial indicator observed through a television camera, and with a linear potentiometer whose output was printed at the control terminal. Seeder pressure levels were also monitored via a TV camera.

The typical data rates attained were 15–30 KHz. However, in certain complex regions, i.e., near separation or strong shock waves, rates occasionally dropped as low as 1 KHz. At each measurement location, 15,360–26,112 valid data pairs were obtained and used to compute averaged flowfield quantities.

RESULTS

Figures 7 and 8 show shadowgraphs of the cases of $\alpha = 0^\circ$, 5° , and 10° . The incoming boundary layer edge (δ_0) and the separation and reattachment shocks (S and R) are noted. Above the point of coalescence between these two waves, a single stronger shock (I) turns the flow. In the absence of viscosity only this inviscid shock would be present, and would emanate from the flare-cylinder junction at the same inclination to the free stream. Surface oil-flow patterns are shown for the same cases in figures 9 and 10. The $\phi = 90^\circ$ plane is the viewing plane in all four figures. These flow visualizations help to ascertain general characteristics of the flow, and were useful in determining the locations in which to concentrate pressure and velocity measurements.

A sample upstream boundary-layer-velocity profile ($\alpha = 5^\circ$, $x = -5.5$ cm) appears in figure 11, plotted in velocity-defect form. Shown for comparison is Coles' wall-wake law (ref. 8) modified for compressible flow (ref. 9). The data match the theory quite closely, indicating the fully developed turbulent character of the boundary layer. To plot data in this form, it is necessary to determine the local skin friction coefficient, C_f . Reference 10 describes a graphical technique which employs mean velocity data and the Fenter-Stalmach compressible law of the wall to do this; figure 12 illustrates its results. Data are plotted as U/U_e versus R_y ($\equiv yU_e/\nu_e$) on a linear-log scale. Parametric variation of C_f over a range of R_y yields a family of theoretical curves such as those shown by solid lines in figure 12. Those curves for which the linear portion best fits the first few data points provide the experimental skin friction coefficient. Measurements corresponding to larger y values are ignored since they are outside the range of validity for the method. Assumptions include adiabatic flow of an ideal gas, a specific heat ratio (γ) of 7/5, a turbulent recovery factor of 0.88, and zero normal pressure gradient. The viscosity is calculated by Sutherland's law (ref. 10).

Table 1 gives nominal values and uncertainty levels for the key test parameters. The uncertainties for total and free-stream conditions do not quantify errors in the individual measurements of those quantities, but represent the maximum deviation from their nominal values throughout the duration of the test. Uncertainties given for static pressure, mean velocities, and turbulence correlations do represent potential measurement error, but are believed to be worst-case values likely to be found only in regions of high velocity gradients and turbulence intensities.

Pressure Data

Tables 2 and 3 show mean surface pressure data for $\alpha = 0^\circ$, tables 4 and 5 for $\alpha = 5^\circ$, and tables 6 and 7 for the 10° case. Each table lists several "frames" of data which give the pressure distribution over the model for a given set of tunnel operating conditions. These total and free-stream conditions are given in the

heading of each frame. The total temperature drops steadily and slowly, due to the expansion of the air in the supply tanks. Total pressure p_t and M_∞ are subject to small random fluctuations. Five data frames taken from a single tunnel run are given in Table 2. In tables 4 and 6, two runs are represented in the 10 frames shown, and some measurement locations differ from one run to another. For each frame of data, the streamwise pressure distribution is given both in terms of pressure coefficients and as fractions of total pressure.

Table 3 contains the average pressure distribution and tunnel conditions computed from the five individual frames in table 2. Likewise, the averages from tables 4 and 6 are given in tables 5 and 7, respectively.

In figure 13, the data from the final frame in each of the five tunnel runs represented in tables 2 through 7, are shown on three separate plots.

Velocity and Turbulence Data

Tables 8, 9, and 10 list the mean flowfield data for α of 0, 5, and 10 degrees, respectively. Each table is divided into individual profiles taken at fixed x -locations. There are 22 profiles in table 8, 26 in table 9, and 25 in table 10. For each profile, a heading is printed that contains alpha, x , the date and time when the data were obtained, total pressure, plus or minus 0.5%, total temperature ($\pm 1.75\%$), and free-stream velocity ($\pm 1.0\%$)

There are eight columns of data beneath the heading. The first column on the left gives y , the vertical distance, measured normal to the cylinder axis, from the model surface to the measurement location. The next two columns give the x and y components of the mean-velocity vector, normalized by u_∞ . These two components constitute the complete mean-velocity vector in the plane of symmetry, where the data were taken.

The next three columns contain components of the Reynolds stress tensor. The normal stress $\overline{u'^2}$ is U2, $\overline{v'^2}$ is V2, and the shear stress $\overline{u'v'}$ is given as UV in column 6. These are kinematic quantities, since the density is not included, and they are nondimensionalized by u_∞^2 .

The quantity U2V2 in column 7 equals $0.75(\overline{u'^2} + \overline{v'^2})/u_\infty^2$, and can be termed the kinematic turbulent kinetic energy if the assumption that $\overline{w'^2} = 0.5(\overline{u'^2} + \overline{v'^2})$ is allowed.

Finally, the quantity GMINUS is the reverse-flow intermittency, or the percentage of instantaneous velocity measurements made where the streamwise component was negative. For the present cases, this can be interpreted as the fraction of time that the flow is reversed at a given point.

These data, with the exception of GMINUS, are plotted in profile form in figures 14 through 31. Figures 14–16 show mean streamwise velocity plots for alpha of 0°, 5°, and 10°, respectively, while figures 17–19 do the same for the vertical component. Reynolds shear stress profiles over the cylinder are plotted in figures 20–22. The profiles over the flare and afterbody are excluded—although they are listed in the tables—because the effect of the coordinate system rotation on them is uncertain. Values of the normal Reynolds stresses are independent of coordinate rotation; the full range of streamwise normal stress profiles appears in figures 23–25, and the vertical normal stresses are shown in figures 26–28. Finally, figures 29–31 contain the kinematic turbulent-kinetic-energy plots for the three cases studied.

Note that because of space constraints, some profiles that are given in the tables were excluded from the figures. These data were taken from the afterbody region of the flow.

CONCLUDING REMARKS

A complex turbulent flow was devised in order to provide experimental data for the development and testing of CFD codes and their associated turbulence models. The flow was that of a Mach 2.85 axisymmetric, fully-developed turbulent boundary layer being rapidly compressed by a conical flare. The compression yielded

a strong shock/boundary layer interaction which resulted in boundary layer separation distances (upstream of the compression corner) on the order of a boundary layer thickness. Both two- and three- dimensional compressions were studied. In addition to shadowgraph and surface-oil flow visualizations, wall pressures and two-component LDV flowfield data were used to document the flows. The mean-pressure and LDV data have been tabulated in sufficient detail for validating computer codes and turbulence models.

REFERENCES

1. Brown, J. D.: Two-Component LDV Investigation of Shock-Related Turbulent Boundary Layer Separation with Increasing Three Dimensionality. Ph.D. Thesis, Univ. of Calif., Berkeley, CA, 1986.
2. Brown, J. D.; Brown J. L.; Kussoy, M. I.; Holt, M.; and Horstman, C. C.: Two-Component LDV Investigation of 3-Dimensional Shock/Turbulent Boundary Layer Interactions. *AIAA J.*, vol. 26, no. 1, pp. 52-56, Jan. 1988.
3. Kussoy, M. I.; Brown, J. D.; Brown, J. L.; Lockman, W. K.; and Horstman, C. C.: Fluctuations and Massive Separation in Three-Dimensional Shock-Wave Boundary-Layer Interactions, 2nd International Symposium on Transport Phenomena in Turbulent Flows. Tokyo, Japan, 1987.
4. Brown, J. L.; Kussoy, M. I.; and Coakley, T. J.: Turbulent Properties of Axisymmetric Shock-Wave Boundary-Layer Interaction Flows. IUTAM Symposium, Paris, France, 1985.
5. Horstman, C. C.; Kussoy, M. I.; and Lockman, W. K.: Computation of Three-Dimensional Shock Wave/Turbulent Boundary Layer Interaction Flows. *Numerical and Physical Aspects of Aerodynamic Flows Ch. III*, Springer-Verlag, 1986.
6. Dunagan, S. E.; Brown, J. L.; and Miles, J. B.: Holographic Interferometry Study of an Axisymmetric Shock-Wave Boundary-Layer Strong Interaction Flow. *AIAA J.*, vol. 25, no. 2, pp. 294-299, Feb. 1987.
7. Seegmiller, H. L.; Bader, J. B.; Cooney, J. P.; De Young, A.; Donaldson, R. W., Jr.; Gunter, W. D., Jr.; and Harrison, D. R.: Development of a New Laser Doppler Velocimeter for the Ames High Reynolds Channel No. II. NASA TM-86772, 1985.
8. Coles, D.: The Law of the Wake in the Turbulent Boundary Layer. *J. Fluid Mechanics*, vol. 1, pt. 2, Jan. 1956, pp. 191-226.
9. Mathews, D. C.; and Childs, M. E.: Use of Coles' Universal Wake Function for Compressible Turbulent Boundary Layers. *J. Aircraft*, vol. 7, no. 2, March-Apr. 1970, pp. 137-40.
10. Allen, J. M.; and Tudor, D. H.: Charts for Interpolation of Local Skin Friction from Experimental Turbulent Velocity Profiles. NASA SP-3048, 1969.

TABLE 1.- NOMINAL TEST CONDITIONS AND
MEASUREMENT UNCERTAINTIES

Quantity	Value	Uncertainty
P_T	1.7 atm	$\pm 0.4\%$
T_T	265 K	$\pm 7.0\%$
M_∞	2.85	$\pm 0.9\%$
u_∞	577 m/s	$\pm 1.9\%$
Re_∞	$16 \times 10^6 \text{ m}^{-1}$	—
δ_o	1.10 cm	$\pm 4.5\%$
C_{f_o}	0.00175	$\pm 5\%$
$p(x)$	—	$\pm 5\%$
$\bar{u}_i(x, y)$	—	$\pm 5\%$
$\overline{u'_i u'_j}(x, y)$	—	$\pm 15\%$

TABLE 2.- PRESSURE VS. STREAMWISE COORDINATE (x)

$\alpha = 0^\circ$; Test 47; Run 828; Frame 17

$P_T = 1.6946$ atm; $T_T = 277.1$ K; $Re/m = 0.1489E+08$; $M_\infty = 2.8769$

X (CM)	P/PT	CP
-6.000	0.3782E-01	0.2653E-01
-4.000	0.3772E-01	0.2602E-01
-3.500	0.3783E-01	0.2661E-01
-3.000	0.4073E-01	0.4186E-01
-2.500	0.5390E-01	0.1112E+00
-1.000	0.6897E-01	0.1905E+00
-0.500	0.7028E-01	0.1975E+00
0.000	0.7350E-01	0.2144E+00
0.433	0.7829E-01	0.2396E+00
0.866	0.8825E-01	0.2921E+00
1.732	0.1094E+00	0.4034E+00
2.165	0.1209E+00	0.4640E+00
2.598	0.1308E+00	0.5161E+00
1.299	0.9894E-01	0.3484E+00
3.464	0.1442E+00	0.5867E+00
4.330	0.1510E+00	0.6227E+00

$\alpha = 0^\circ$; Test 47; Run 828; Frame 23

$P_T = 1.6952$ atm; $T_T = 271.7$ K; $Re/m = 0.1542E+08$; $M_\infty = 2.8691$

X (CM)	P/PT	CP
-6.000	0.3780E-01	0.2426E-01
-4.000	0.3754E-01	0.2291E-01
-3.500	0.3782E-01	0.2434E-01
-3.000	0.4006E-01	0.3609E-01
-2.500	0.5307E-01	0.1041E+00
-1.000	0.6861E-01	0.1854E+00
-0.500	0.7026E-01	0.1941E+00
0.000	0.7347E-01	0.2109E+00
0.433	0.7842E-01	0.2368E+00
0.866	0.8854E-01	0.2897E+00
1.732	0.1103E+00	0.4036E+00
2.165	0.1220E+00	0.4648E+00
2.598	0.1319E+00	0.5164E+00
1.299	0.9956E-01	0.3474E+00
3.464	0.1451E+00	0.5858E+00
4.330	0.1518E+00	0.6207E+00

TABLE 2.- CONTINUED

 $\alpha = 0^\circ$; Test 47; Run 828; Frame 28 $P_T = 1.6939$ atm; $T_T = 264.2$ K; $Re/m = 0.1604E+08$; $M_\infty = 2.8686$

X (CM)	P/PT	CP
-6.000	0.3783E-01	0.2427E-01
-4.000	0.3757E-01	0.2291E-01
-3.500	0.3769E-01	0.2349E-01
-3.000	0.3847E-01	0.2760E-01
-2.500	0.4952E-01	0.8541E-01
-1.000	0.6866E-01	0.1855E+00
-0.500	0.7031E-01	0.1941E+00
0.000	0.7369E-01	0.2118E+00
0.433	0.7914E-01	0.2403E+00
0.866	0.8992E-01	0.2967E+00
1.732	0.1120E+00	0.4122E+00
2.165	0.1238E+00	0.4736E+00
2.598	0.1334E+00	0.5242E+00
1.299	0.1013E+00	0.3561E+00
3.464	0.1469E+00	0.5946E+00
4.330	0.1522E+00	0.6226E+00

 $\alpha = 0^\circ$; Test 47; Run 828; Frame 33 $P_T = 1.6952$ atm; $T_T = 260.8$ K; $Re/m = 0.1637E+08$; $M_\infty = 2.8691$

X (CM)	P/PT	CP
-6.000	0.3780E-01	0.2426E-01
-4.000	0.3754E-01	0.2291E-01
-3.500	0.3782E-01	0.2434E-01
-3.000	0.3811E-01	0.2589E-01
-2.500	0.4851E-01	0.8026E-01
-1.000	0.6861E-01	0.1854E+00
-0.500	0.7026E-01	0.1941E+00
0.000	0.7363E-01	0.2117E+00
0.433	0.7940E-01	0.2419E+00
0.866	0.9050E-01	0.3000E+00
1.732	0.1126E+00	0.4155E+00
2.165	0.1243E+00	0.4769E+00
2.598	0.1340E+00	0.5273E+00
1.299	0.1017E+00	0.3585E+00
3.464	0.1468E+00	0.5944E+00
4.330	0.1520E+00	0.6216E+00

TABLE 2.- CONCLUDED

 $\alpha = 0^\circ$; Test 47; Run 828; Frame 37 $P_T = 1.6952$ atm; $T_T = 260.7$ K; $Re/m = 0.1637E+08$; $M_\infty = 2.8691$

X (CM)	P/PT	CP
-6.000	0.3780E-01	0.2426E-01
-4.000	0.3754E-01	0.2291E-01
-3.500	0.3766E-01	0.2348E-01
-3.000	0.3828E-01	0.2674E-01
-2.500	0.4753E-01	0.7515E-01
-1.000	0.6861E-01	0.1854E+00
-0.500	0.7026E-01	0.1941E+00
0.000	0.7379E-01	0.2126E+00
0.433	0.7956E-01	0.2427E+00
0.866	0.9099E-01	0.3025E+00
1.732	0.1140E+00	0.4231E+00
2.165	0.1260E+00	0.4856E+00
2.598	0.1356E+00	0.5358E+00
1.299	0.1027E+00	0.3636E+00
3.464	0.1477E+00	0.5995E+00
4.330	0.1529E+00	0.6267E+00

TABLE 3.- PRESSURE VS. STREAMWISE COORDINATE (x), AVERAGE DISTRIBUTION

 $\alpha = 0^\circ$; Test 47; Run 828; All Frames $P_T = 1.6948$ atm; $T_T = 266.9$ K; $Re/m = 0.1582E+08$; $M_\infty = 2.8706$

X (CM)	P/PT	CP
-6.000	0.3781E-01	0.2472E-01
-4.000	0.3758E-01	0.2353E-01
-3.500	0.3776E-01	0.2445E-01
-3.000	0.3913E-01	0.3164E-01
-2.500	0.5051E-01	0.9122E-01
-1.000	0.6869E-01	0.1864E+00
-0.500	0.7027E-01	0.1948E+00
0.000	0.7362E-01	0.2123E+00
0.433	0.7896E-01	0.2403E+00
0.866	0.8964E-01	0.2962E+00
1.732	0.1117E+00	0.4116E+00
2.165	0.1234E+00	0.4730E+00
2.598	0.1331E+00	0.5240E+00
1.299	0.1008E+00	0.3548E+00
3.464	0.1461E+00	0.5922E+00
4.330	0.1520E+00	0.6229E+00

TABLE 4.- PRESSURE VS. STREAMWISE COORDINATE (x)
 $\alpha = 5^\circ$; Test 47; Run 827; Frame 16
 $P_T = 1.6959$ atm; $T_T = 262.7$ K; $Re/m = 0.1644E+08$; $M_\infty = 2.8398$

X (CM)	P/PT	CP
-7.500	0.3392E-01	-0.3869E-02
-5.500	0.3360E-01	-0.5492E-02
-5.000	0.3370E-01	-0.4981E-02
-4.500	0.3354E-01	-0.5834E-02
-4.000	0.3490E-01	0.1110E-02
-2.500	0.6104E-01	0.1347E+00
-2.000	0.6282E-01	0.1438E+00
-1.500	0.6453E-01	0.1525E+00
-0.500	0.6722E-01	0.1662E+00
0.410	0.7529E-01	0.2074E+00
0.819	0.8751E-01	0.2699E+00
1.638	0.1196E+00	0.4340E+00
2.048	0.1363E+00	0.5191E+00
2.457	0.1530E+00	0.6042E+00
3.277	0.1755E+00	0.7192E+00
4.096	0.1921E+00	0.8039E+00
4.915	0.1945E+00	0.8163E+00

$\alpha = 5^\circ$; Test 47; Run 827; Frame 21
 $P_T = 1.7007$ atm; $T_T = 260.4$ K; $Re/m = 0.1670E+08$; $M_\infty = 2.8417$

X (CM)	P/PT	CP
-7.500	0.3350E-01	-0.5518E-02
-5.500	0.3335E-01	-0.6316E-02
-5.000	0.3328E-01	-0.6643E-02
-4.500	0.3296E-01	-0.8313E-02
-4.000	0.3447E-01	-0.5539E-03
-2.500	0.6087E-01	0.1345E+00
-2.000	0.6280E-01	0.1444E+00
-1.500	0.6451E-01	0.1531E+00
-0.500	0.6719E-01	0.1668E+00
0.410	0.7524E-01	0.2080E+00
0.819	0.8791E-01	0.2728E+00
1.638	0.1200E+00	0.4368E+00
2.048	0.1364E+00	0.5209E+00
2.457	0.1532E+00	0.6067E+00
3.277	0.1753E+00	0.7200E+00
4.096	0.1912E+00	0.8012E+00
4.915	0.1941E+00	0.8160E+00

TABLE 4.- CONTINUED

 $\alpha = 5^\circ$; Test 47; Run 827; Frame 23 $P_T = 1.6986$ atm; $T_T = 257.1$ K; $Re/m = 0.1706E+08$; $M_\infty = 2.8334$

X (CM)	P/PT	CP
-7.500	0.3370E-01	-0.6689E-02
-5.500	0.3339E-01	-0.8305E-02
-5.000	0.3365E-01	-0.6971E-02
-4.500	0.3300E-01	-0.1029E-01
-4.000	0.3419E-01	-0.4228E-02
-2.500	0.6078E-01	0.1309E+00
-2.000	0.6272E-01	0.1407E+00
-1.500	0.6459E-01	0.1503E+00
-0.500	0.6711E-01	0.1631E+00
0.410	0.7533E-01	0.2048E+00
0.819	0.8802E-01	0.2693E+00
1.638	0.1201E+00	0.4323E+00
2.048	0.1371E+00	0.5185E+00
2.457	0.1540E+00	0.6045E+00
3.277	0.1759E+00	0.7156E+00
4.096	0.1913E+00	0.7939E+00
4.915	0.1938E+00	0.8070E+00

 $\alpha = 5^\circ$; Test 47; Run 827; Frame 27 $P_T = 1.6973$ atm; $T_T = 252.7$ K; $Re/m = 0.1742E+08$; $M_\infty = 2.8404$

X (CM)	P/PT	CP
-7.500	0.3406E-01	-0.3040E-02
-5.500	0.3358E-01	-0.5490E-02
-5.000	0.3400E-01	-0.3309E-02
-4.500	0.3318E-01	-0.7491E-02
-4.000	0.3405E-01	-0.3050E-02
-2.500	0.6050E-01	0.1321E+00
-2.000	0.6277E-01	0.1437E+00
-1.500	0.6464E-01	0.1533E+00
-0.500	0.6732E-01	0.1670E+00
0.410	0.7604E-01	0.2115E+00
0.819	0.8923E-01	0.2789E+00
1.638	0.1220E+00	0.4462E+00
2.048	0.1390E+00	0.5333E+00
2.457	0.1562E+00	0.6212E+00
3.277	0.1771E+00	0.7282E+00
4.096	0.1922E+00	0.8053E+00
4.915	0.1933E+00	0.8110E+00

TABLE 4.- CONTINUED

 $\alpha = 5^\circ$; Test 47; Run 827; Frame 41 $P_T = 1.6973$ atm; $T_T = 250.9$ K; $Re/m = 0.1765E+08$; $M_\infty = 2.8328$

X (CM)	P/PT	CP
-7.500	0.3406E-01	-0.5046E-02
-5.500	0.3341E-01	-0.8308E-02
-5.000	0.3368E-01	-0.6974E-02
-4.500	0.3302E-01	-0.1029E-01
-4.000	0.3357E-01	-0.7535E-02
-2.500	0.6050E-01	0.1293E+00
-2.000	0.6277E-01	0.1408E+00
-1.500	0.6464E-01	0.1503E+00
-0.500	0.6748E-01	0.1647E+00
0.410	0.7620E-01	0.2090E+00
0.819	0.8939E-01	0.2760E+00
1.638	0.1223E+00	0.4431E+00
2.048	0.1388E+00	0.5271E+00
2.457	0.1557E+00	0.6129E+00
3.277	0.1766E+00	0.7192E+00
4.096	0.1924E+00	0.7992E+00
4.915	0.1929E+00	0.8015E+00

TABLE 4.- CONTINUED

 $\alpha = 5^\circ$; Test 47; Run 831; Frame 16 $P_T = 1.7020$ atm; $T_T = 257.7$ K; $Re/m = 0.1690E+08$; $M_\infty = 2.8496$

X (CM)	P/PT	CP
-7.000	0.3526E-01	0.5632E-02
-5.000	0.3516E-01	0.5127E-02
-4.500	0.3540E-01	0.6334E-02
-4.000	0.3682E-01	0.1367E-01
-3.500	0.4600E-01	0.6091E-01
-2.000	0.6512E-01	0.1594E+00
-1.500	0.6641E-01	0.1660E+00
-1.000	0.7011E-01	0.1851E+00
0.000	0.7330E-01	0.2015E+00
0.410	0.7668E-01	0.2189E+00
0.819	0.8853E-01	0.2799E+00
1.229	0.1035E+00	0.3570E+00
1.638	0.1197E+00	0.4404E+00
2.048	0.1359E+00	0.5239E+00
2.457	0.1522E+00	0.6078E+00
3.277	0.1745E+00	0.7225E+00
4.096	0.1926E+00	0.8158E+00
4.915	0.1941E+00	0.8235E+00

 $\alpha = 5^\circ$; Test 47; Run 831; Frame 22 $P_T = 1.7020$ atm; $T_T = 252.4$ K; $Re/m = 0.1742E+08$; $M_\infty = 2.8496$

X (CM)	P/PT	CP
-7.000	0.3526E-01	0.5632E-02
-5.000	0.3516E-01	0.5127E-02
-4.500	0.3556E-01	0.7169E-02
-4.000	0.3634E-01	0.1118E-01
-3.500	0.4374E-01	0.4927E-01
-2.000	0.6561E-01	0.1619E+00
-1.500	0.6625E-01	0.1652E+00
-1.000	0.7203E-01	0.1949E+00
0.000	0.7346E-01	0.2023E+00
0.410	0.7732E-01	0.2222E+00
0.819	0.8983E-01	0.2866E+00
1.229	0.1050E+00	0.3646E+00
1.638	0.1226E+00	0.4552E+00
2.048	0.1390E+00	0.5399E+00
2.457	0.1554E+00	0.6243E+00
3.277	0.1766E+00	0.7333E+00
4.096	0.1933E+00	0.8191E+00
4.915	0.1941E+00	0.8235E+00

TABLE 4.- CONTINUED

 $\alpha = 5^\circ$; Test 47; Run 831; Frame 27 $P_T = 1.7014$ atm; $T_T = 251.7$ K; $Re/m = 0.1755E+08$; $M_\infty = 2.8417$

X (CM)	P/PT	CP
-7.000	0.3528E-01	0.3564E-02
-5.000	0.3534E-01	0.3888E-02
-4.500	0.3574E-01	0.5921E-02
-4.000	0.3635E-01	0.9079E-02
-3.500	0.4359E-01	0.4612E-01
-2.000	0.6531E-01	0.1572E+00
-1.500	0.6644E-01	0.1630E+00
-1.000	0.7397E-01	0.2015E+00
0.000	0.7364E-01	0.1999E+00
0.410	0.7751E-01	0.2197E+00
0.819	0.9019E-01	0.2845E+00
1.229	0.1062E+00	0.3662E+00
1.638	0.1228E+00	0.4512E+00
2.048	0.1396E+00	0.5372E+00
2.457	0.1563E+00	0.6226E+00
3.277	0.1773E+00	0.7302E+00
4.096	0.1928E+00	0.8097E+00
4.915	0.1940E+00	0.8157E+00

 $\alpha = 5^\circ$; Test 47; Run 831; Frame 33 $P_T = 1.7020$ atm; $T_T = 249.6$ K; $Re/m = 0.1772E+08$; $M_\infty = 2.8496$

X (CM)	P/PT	CP
-7.000	0.3526E-01	0.5632E-02
-5.000	0.3533E-01	0.5959E-02
-4.500	0.3588E-01	0.8839E-02
-4.000	0.3634E-01	0.1118E-01
-3.500	0.4374E-01	0.4927E-01
-2.000	0.6512E-01	0.1594E+00
-1.500	0.6641E-01	0.1660E+00
-1.000	0.7171E-01	0.1933E+00
0.000	0.7393E-01	0.2047E+00
0.410	0.7748E-01	0.2230E+00
0.819	0.8999E-01	0.2874E+00
1.229	0.1055E+00	0.3671E+00
1.638	0.1221E+00	0.4527E+00
2.048	0.1387E+00	0.5382E+00
2.457	0.1553E+00	0.6235E+00
3.277	0.1764E+00	0.7325E+00
4.096	0.1928E+00	0.8166E+00
4.915	0.1939E+00	0.8226E+00

TABLE 4.- CONCLUDED

 $\alpha = 5^\circ$; Test 47; Run 831; Frame 37 $P_T = 1.7007$ atm; $T_T = 246.6$ K; $Re/m = 0.1801E+08$; $M_\infty = 2.8490$

X (CM)	P/PT	CP
-7.000	0.3529E-01	0.5634E-02
-5.000	0.3519E-01	0.5129E-02
-4.500	0.3559E-01	0.7172E-02
-4.000	0.3588E-01	0.8696E-02
-3.500	0.4216E-01	0.4098E-01
-2.000	0.6566E-01	0.1620E+00
-1.500	0.6646E-01	0.1661E+00
-1.000	0.8088E-01	0.2403E+00
0.000	0.7399E-01	0.2048E+00
0.410	0.7755E-01	0.2231E+00
0.819	0.9038E-01	0.2892E+00
1.229	0.1062E+00	0.3706E+00
1.638	0.1227E+00	0.4553E+00
2.048	0.1396E+00	0.5427E+00
2.457	0.1557E+00	0.6253E+00
3.277	0.1769E+00	0.7344E+00
4.096	0.1936E+00	0.8202E+00
4.915	0.1938E+00	0.8213E+00

TABLE 5.- PRESSURE VS. STREAMWISE COORDINATE (x), AVERAGE DISTRIBUTION

 $\alpha = 5^\circ$; Test 47; Runs 827 and 831; All Frames $P_T = 1.6998$ atm; $T_T = 254.2$ K; $Re/m = 0.1729E+08$; $M_\infty = 2.8428$

X (CM)	P/PT	CP
-7.500	0.3385E-01	-0.4832E-02
-7.000	0.3527E-01	0.5219E-02
-5.500	0.3347E-01	-0.6782E-02
-5.000	0.3445E-01	-0.3648E-03
-4.500	0.3439E-01	-0.6783E-03
-4.000	0.3529E-01	0.3955E-02
-3.500	0.4385E-01	0.4931E-01
-2.500	0.6074E-01	0.1323E+00
-2.000	0.6407E-01	0.1513E+00
-1.500	0.6549E-01	0.1586E+00
-1.000	0.7374E-01	0.2030E+00
-0.500	0.6726E-01	0.1656E+00
0.000	0.7366E-01	0.2026E+00
0.410	0.7646E-01	0.2148E+00
0.819	0.8910E-01	0.2795E+00
1.229	0.1053E+00	0.3651E+00
1.638	0.1214E+00	0.4447E+00
2.048	0.1380E+00	0.5301E+00
2.457	0.1547E+00	0.6153E+00
3.277	0.1762E+00	0.7255E+00
4.096	0.1924E+00	0.8085E+00
4.915	0.1939E+00	0.8158E+00

TABLE 6.- PRESSURE VS. STREAMWISE COORDINATE (x)
 $\alpha = 10^\circ$; Test 47; Run 829; Frame 15
 $P_T = 1.6986$ atm; $T_T = 268.2$ K; $Re/m = 0.1608E+08$; $M_\infty = 2.8290$

X (CM)	P/PT	CP
-8.000	0.3523E-01	-0.1250E-03
-6.000	0.3505E-01	-0.1059E-02
-5.500	0.3518E-01	-0.3875E-03
-5.000	0.3531E-01	0.2883E-03
-4.500	0.3825E-01	0.1515E-01
-3.000	0.6291E-01	0.1400E+00
-2.500	0.6713E-01	0.1614E+00
-2.000	0.6552E-01	0.1533E+00
-1.000	0.6673E-01	0.1593E+00
0.000	0.7547E-01	0.2036E+00
0.766	0.9117E-01	0.2831E+00
1.379	0.1248E+00	0.4534E+00
1.915	0.1065E+00	0.3609E+00
2.451	0.1938E+00	0.8028E+00
2.988	0.2174E+00	0.9220E+00
3.983	0.2401E+00	0.1037E+01

$\alpha = 10^\circ$; Test 47; Run 829; Frame 21
 $P_T = 1.7007$ atm; $T_T = 266.3$ K; $Re/m = 0.1624E+08$; $M_\infty = 2.8298$

X (CM)	P/PT	CP
-8.000	0.3519E-01	-0.1250E-03
-6.000	0.3500E-01	-0.1059E-02
-5.500	0.3514E-01	-0.3873E-03
-5.000	0.3511E-01	-0.5269E-03
-4.500	0.3820E-01	0.1514E-01
-3.000	0.6332E-01	0.1424E+00
-2.500	0.6720E-01	0.1621E+00
-2.000	0.6544E-01	0.1532E+00
-1.000	0.6696E-01	0.1609E+00
0.000	0.7571E-01	0.2052E+00
0.766	0.9106E-01	0.2829E+00
1.379	0.1245E+00	0.4524E+00
1.915	0.1047E+00	0.3522E+00
2.451	0.1931E+00	0.7999E+00
2.988	0.2161E+00	0.9165E+00
3.983	0.2398E+00	0.1037E+01

TABLE 6.- CONTINUED

 $\alpha = 10^\circ$; Test 47; Run 829; Frame 28 $P_T = 1.7007$ atm; $T_T = 260.8$ K; $Re/m = 0.1683E+08$; $M_\infty = 2.8224$

X (CM)	P/PT	CP
-8.000	0.3519E-01	-0.2125E-02
-6.000	0.3500E-01	-0.3053E-02
-5.500	0.3562E-01	0.6076E-04
-5.000	0.3511E-01	-0.2525E-02
-4.500	0.3740E-01	0.8993E-02
-3.000	0.6332E-01	0.1395E+00
-2.500	0.6704E-01	0.1583E+00
-2.000	0.6544E-01	0.1502E+00
-1.000	0.6696E-01	0.1579E+00
0.000	0.7571E-01	0.2019E+00
0.766	0.9202E-01	0.2841E+00
1.379	0.1253E+00	0.4517E+00
1.915	0.1049E+00	0.3489E+00
2.451	0.1945E+00	0.8003E+00
2.988	0.2171E+00	0.9140E+00
3.983	0.2395E+00	0.1027E+01

 $\alpha = 10^\circ$; Test 47; Run 829; Frame 38 $P_T = 1.7007$ atm; $T_T = 257.9$ K; $Re/m = 0.1709E+08$; $M_\infty = 2.8224$

X (CM)	P/PT	CP
-8.000	0.3519E-01	-0.2125E-02
-6.000	0.3500E-01	-0.3053E-02
-5.500	0.3514E-01	-0.2386E-02
-5.000	0.3511E-01	-0.2525E-02
-4.500	0.3691E-01	0.6557E-02
-3.000	0.6332E-01	0.1395E+00
-2.500	0.6688E-01	0.1575E+00
-2.000	0.6544E-01	0.1502E+00
-1.000	0.6696E-01	0.1579E+00
0.000	0.7603E-01	0.2036E+00
0.766	0.9170E-01	0.2825E+00
1.379	0.1237E+00	0.4436E+00
1.915	0.1029E+00	0.3386E+00
2.451	0.1933E+00	0.7939E+00
2.988	0.2163E+00	0.9098E+00
3.983	0.2392E+00	0.1025E+01

TABLE 6.- CONTINUED

 $\alpha = 10^\circ$; Test 47; Run 829; Frame 54 $P_T = 1.7007$ atm; $T_T = 255.8$ K; $Re/m = 0.1729E+08$; $M_\infty = 2.8224$

X (CM)	P/PT	CP
-8.000	0.3535E-01	-0.1316E-02
-6.000	0.3500E-01	-0.3053E-02
-5.500	0.3562E-01	0.6076E-04
-5.000	0.3511E-01	-0.2525E-02
-4.500	0.3675E-01	0.5745E-02
-3.000	0.6316E-01	0.1387E+00
-2.500	0.6720E-01	0.1591E+00
-2.000	0.6560E-01	0.1511E+00
-1.000	0.6712E-01	0.1587E+00
0.000	0.7651E-01	0.2060E+00
0.766	0.9251E-01	0.2865E+00
1.379	0.1268E+00	0.4590E+00
1.915	0.1047E+00	0.3480E+00
2.451	0.1953E+00	0.8044E+00
2.988	0.2176E+00	0.9164E+00
3.983	0.2395E+00	0.1027E+01

TABLE 6.- CONTINUED

 $\alpha = 10^\circ$; Test 47; Run 830; Frame 14 $P_T = 1.7027$ atm; $T_T = 262.8$ K; $Re/m = 0.1657E+08$; $M_\infty = 2.8300$

X (CM)	P/PT	CP
-8.500	0.3433E-01	-0.4408E-02
-6.500	0.3384E-01	-0.6886E-02
-6.000	0.3424E-01	-0.4835E-02
-5.500	0.3442E-01	-0.3960E-02
-5.000	0.3412E-01	-0.5459E-02
-3.500	0.5904E-01	0.1208E+00
-3.000	0.6149E-01	0.1332E+00
-2.500	0.6333E-01	0.1426E+00
-1.500	0.6556E-01	0.1538E+00
-0.500	0.6752E-01	0.1638E+00
0.766	0.8969E-01	0.2761E+00
1.379	0.1217E+00	0.4382E+00
2.451	0.1911E+00	0.7900E+00
2.988	0.2141E+00	0.9067E+00
3.983	0.2391E+00	0.1033E+01

 $\alpha = 10^\circ$; Test 47; Run 830; Frame 22 $P_T = 1.7007$ atm; $T_T = 258.8$ K; $Re/m = 0.1696E+08$; $M_\infty = 2.8293$

X (CM)	P/PT	CP
-8.500	0.3437E-01	-0.4410E-02
-6.500	0.3388E-01	-0.6890E-02
-6.000	0.3461E-01	-0.3195E-02
-5.500	0.3446E-01	-0.3963E-02
-5.000	0.3416E-01	-0.5462E-02
-3.500	0.5830E-01	0.1168E+00
-3.000	0.6140E-01	0.1325E+00
-2.500	0.6341E-01	0.1426E+00
-1.500	0.6579E-01	0.1547E+00
-0.500	0.6793E-01	0.1655E+00
0.766	0.9189E-01	0.2869E+00
1.379	0.1262E+00	0.4605E+00
2.451	0.1963E+00	0.8155E+00
2.988	0.2181E+00	0.9262E+00
3.983	0.2399E+00	0.1036E+01

TABLE 6.- CONTINUED

 $\alpha = 10^\circ$; Test 47; Run 830; Frame 30 $P_T = 1.7007$ atm; $T_T = 256.3$ K; $Re/m = 0.1719E+08$; $M_\infty = 2.8293$

X (CM)	P/PT	CP
-8.500	0.3437E-01	-0.4410E-02
-6.500	0.3388E-01	-0.6890E-02
-6.000	0.3429E-01	-0.4838E-02
-5.500	0.3414E-01	-0.5594E-02
-5.000	0.3384E-01	-0.7097E-02
-3.500	0.5846E-01	0.1176E+00
-3.000	0.6172E-01	0.1341E+00
-2.500	0.6341E-01	0.1426E+00
-1.500	0.6579E-01	0.1547E+00
-0.500	0.6793E-01	0.1655E+00
0.766	0.9205E-01	0.2877E+00
1.379	0.1257E+00	0.4581E+00
2.451	0.1963E+00	0.8155E+00
2.988	0.2185E+00	0.9279E+00
3.983	0.2399E+00	0.1036E+01

 $\alpha = 10^\circ$; Test 47; Run 830; Frame 34 $P_T = 1.7000$ atm; $T_T = 254.8$ K; $Re/m = 0.1732E+08$; $M_\infty = 2.8290$

X (CM)	P/PT	CP
-8.500	0.3390E-01	-0.6855E-02
-6.500	0.3389E-01	-0.6891E-02
-6.000	0.3446E-01	-0.4017E-02
-5.500	0.3447E-01	-0.3964E-02
-5.000	0.3385E-01	-0.7098E-02
-3.500	0.5816E-01	0.1160E+00
-3.000	0.6159E-01	0.1333E+00
-2.500	0.6359E-01	0.1435E+00
-1.500	0.6598E-01	0.1556E+00
-0.500	0.6828E-01	0.1672E+00
0.766	0.9128E-01	0.2837E+00
1.379	0.1248E+00	0.4533E+00
2.451	0.1924E+00	0.7954E+00
2.988	0.2151E+00	0.9107E+00
3.983	0.2388E+00	0.1031E+01

TABLE 6.- CONCLUDED

 $\alpha = 10^\circ$; Test 47; Run 830; Frame 38 $P_T = 1.7007 \text{ atm}$; $T_T = 254.6 \text{ K}$; $\text{Re}/m = 0.1742\text{E}+08$; $M_\infty = 2.8219$

X (CM)	P/PT	CP
-8.500	0.3437E-01	-0.6386E-02
-6.500	0.3388E-01	-0.8851E-02
-6.000	0.3461E-01	-0.5178E-02
-5.500	0.3414E-01	-0.7563E-02
-5.000	0.3384E-01	-0.9057E-02
-3.500	0.5814E-01	0.1133E+00
-3.000	0.6140E-01	0.1297E+00
-2.500	0.6357E-01	0.1406E+00
-1.500	0.6579E-01	0.1518E+00
-0.500	0.6793E-01	0.1625E+00
0.766	0.9141E-01	0.2807E+00
1.379	0.1241E+00	0.4452E+00
2.451	0.1916E+00	0.7853E+00
2.988	0.2144E+00	0.8997E+00
3.983	0.2383E+00	0.1020E+01

TABLE 7.- PRESSURE VS. STREAMWISE COORDINATE (x), AVERAGE DISTRIBUTION

 $\alpha = 10^\circ$; Test 47; Runs 829 and 830; All Frames $P_T = 1.7006 \text{ atm}$; $T_T = 259.6 \text{ K}$; $\text{Re}/m = 0.1690\text{E}+08$; $M_\infty = 2.8266$

X (CM)	P/PT	CP
-8.500	0.3427E-01	-0.5294E-02
-8.000	0.3523E-01	-0.1163E-02
-6.500	0.3387E-01	-0.7282E-02
-6.000	0.3473E-01	-0.3334E-02
-5.500	0.3483E-01	-0.2808E-02
-5.000	0.3456E-01	-0.4199E-02
-4.500	0.3750E-01	0.1032E-01
-3.500	0.5842E-01	0.1169E+00
-3.000	0.6236E-01	0.1363E+00
-2.500	0.6528E-01	0.1510E+00
-2.000	0.6549E-01	0.1516E+00
-1.500	0.6578E-01	0.1541E+00
-1.000	0.6695E-01	0.1589E+00
-0.500	0.6792E-01	0.1649E+00
0.000	0.7589E-01	0.2041E+00
0.766	0.9148E-01	0.2834E+00
1.379	0.1248E+00	0.4515E+00
1.915	0.1047E+00	0.3497E+00
2.451	0.1938E+00	0.8003E+00
2.988	0.2165E+00	0.9150E+00
3.983	0.2394E+00	0.1031E+01

TABLE 8.- LDV FLOW-FIELD DATA
 $\alpha = 0^\circ$; $x = -4.500$ cm; Obtained 6/19/85-15:41:28
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.7380	-6.5011E-04	4.252E-03	2.071E-03	-1.072E-03	4.743E-03	0.000E+00
0.102	0.7744	2.7253E-04	3.477E-03	1.940E-03	-9.720E-04	4.063E-03	0.000E+00
0.152	0.8017	1.5668E-03	3.002E-03	1.789E-03	-8.565E-04	3.593E-03	0.000E+00
0.203	0.8243	2.3670E-03	2.738E-03	1.628E-03	-8.176E-04	3.275E-03	0.000E+00
0.254	0.8402	4.7171E-03	2.570E-03	1.508E-03	-7.917E-04	3.058E-03	0.000E+00
0.317	0.8657	4.1753E-03	2.346E-03	1.387E-03	-7.281E-04	2.800E-03	0.000E+00
0.381	0.8873	3.7336E-03	2.134E-03	1.282E-03	-6.821E-04	2.562E-03	0.000E+00
0.444	0.9058	4.4188E-03	1.938E-03	1.173E-03	-6.155E-04	2.333E-03	0.000E+00
0.508	0.9245	4.6442E-03	1.706E-03	1.023E-03	-5.393E-04	2.046E-03	0.000E+00
0.572	0.9416	4.0133E-03	1.490E-03	9.078E-04	-4.559E-04	1.798E-03	0.000E+00
0.635	0.9577	4.5958E-03	1.229E-03	7.459E-04	-3.621E-04	1.481E-03	0.000E+00
0.698	0.9680	4.8705E-03	9.451E-04	5.700E-04	-2.425E-04	1.136E-03	0.000E+00
0.762	0.9803	4.9363E-03	6.882E-04	4.541E-04	-1.754E-04	8.567E-04	0.000E+00
0.825	0.9882	6.3939E-03	5.351E-04	3.817E-04	-1.251E-04	6.875E-04	0.000E+00
0.889	0.9966	6.5177E-03	3.533E-04	2.814E-04	-5.830E-05	4.760E-04	0.000E+00
1.016	1.0033	8.7537E-03	1.838E-04	1.735E-04	-1.067E-05	2.680E-04	0.000E+00
1.143	1.0051	8.9394E-03	1.395E-04	1.431E-04	7.088E-06	2.119E-04	0.000E+00
1.270	1.0060	8.2974E-03	1.255E-04	1.315E-04	1.480E-05	1.928E-04	0.000E+00
1.397	1.0047	8.5003E-03	1.180E-04	1.218E-04	9.512E-06	1.799E-04	0.000E+00
1.524	1.0034	7.9727E-03	1.177E-04	1.211E-04	1.416E-05	1.791E-04	0.000E+00
1.778	1.0010	5.8022E-03	1.193E-04	1.224E-04	1.631E-05	1.813E-04	0.000E+00
2.032	1.0000	6.5660E-03	1.134E-04	1.167E-04	1.107E-05	1.726E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = -3.500$ cm; Obtained 6/20/85-16:49:46
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.7423	-1.4340E-03	3.715E-03	2.266E-03	-9.800E-04	4.486E-03	0.000E+00
0.102	0.7805	8.2824E-04	3.024E-03	2.012E-03	-8.937E-04	3.777E-03	0.000E+00
0.152	0.8068	2.3014E-03	2.816E-03	1.752E-03	-8.303E-04	3.426E-03	0.000E+00
0.203	0.8318	3.2243E-03	2.589E-03	1.707E-03	-7.718E-04	3.222E-03	0.000E+00
0.254	0.8518	4.0854E-03	2.385E-03	1.597E-03	-7.050E-04	2.986E-03	0.000E+00
0.317	0.8724	4.9899E-03	2.168E-03	1.373E-03	-6.693E-04	2.656E-03	0.000E+00
0.381	0.8931	4.7738E-03	1.917E-03	1.260E-03	-5.814E-04	2.383E-03	0.000E+00
0.444	0.9126	4.2666E-03	1.717E-03	1.178E-03	-5.219E-04	2.171E-03	0.000E+00
0.508	0.9327	3.9486E-03	1.465E-03	9.586E-04	-3.981E-04	1.817E-03	0.000E+00
0.572	0.9467	3.4831E-03	1.271E-03	8.471E-04	-3.455E-04	1.589E-03	0.000E+00
0.635	0.9617	5.1119E-03	1.021E-03	6.781E-04	-2.723E-04	1.275E-03	0.000E+00
0.698	0.9742	4.2284E-03	7.685E-04	5.183E-04	-1.956E-04	9.651E-04	0.000E+00
0.762	0.9853	4.4801E-03	5.564E-04	4.014E-04	-1.223E-04	7.183E-04	0.000E+00
0.825	0.9924	6.0470E-03	4.043E-04	3.093E-04	-6.418E-05	5.352E-04	0.000E+00
0.889	0.9985	7.1385E-03	2.999E-04	2.484E-04	-3.812E-05	4.112E-04	0.000E+00
1.016	1.0045	8.8148E-03	1.608E-04	1.573E-04	1.030E-06	2.386E-04	0.000E+00
1.143	1.0053	8.6939E-03	1.271E-04	1.306E-04	9.121E-06	1.933E-04	0.000E+00
1.270	1.0052	5.5789E-03	1.210E-04	1.268E-04	1.558E-05	1.858E-04	0.000E+00
1.397	1.0034	3.7184E-03	1.138E-04	1.185E-04	1.132E-05	1.742E-04	0.000E+00
1.524	1.0034	4.9047E-03	1.097E-04	1.139E-04	1.141E-05	1.677E-04	0.000E+00
1.778	1.0021	3.3690E-03	1.092E-04	1.144E-04	1.199E-05	1.677E-04	0.000E+00
2.032	1.0001	7.1767E-04	1.043E-04	1.093E-04	1.130E-05	1.601E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = -3.000$ cm; Obtained 6/19/85-17:16:44 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.6965	4.0377E-03	1.038E-02	3.953E-03	-1.230E-03	1.075E-02	7.659E-04
0.102	0.7548	5.2454E-03	6.148E-03	2.926E-03	-1.320E-03	6.805E-03	1.149E-04
0.152	0.7868	6.4464E-03	4.418E-03	2.450E-03	-1.204E-03	5.151E-03	7.659E-05
0.203	0.8140	7.6965E-03	3.541E-03	2.096E-03	-1.203E-03	4.228E-03	0.000E+00
0.254	0.8408	4.1086E-03	2.974E-03	1.874E-03	-1.033E-03	3.637E-03	3.833E-05
0.317	0.8616	5.6690E-03	2.385E-03	1.550E-03	-8.606E-04	2.951E-03	0.000E+00
0.381	0.8824	6.4082E-03	2.105E-03	1.361E-03	-7.216E-04	2.599E-03	0.000E+00
0.444	0.9008	6.2481E-03	1.865E-03	1.179E-03	-6.232E-04	2.283E-03	0.000E+00
0.508	0.9180	5.3074E-03	1.678E-03	1.108E-03	-5.609E-04	2.089E-03	0.000E+00
0.572	0.9347	4.4322E-03	1.427E-03	9.222E-04	-4.601E-04	1.762E-03	0.000E+00
0.635	0.9513	5.0526E-03	1.227E-03	7.802E-04	-3.822E-04	1.506E-03	0.000E+00
0.698	0.9650	5.9311E-03	8.986E-04	5.924E-04	-2.418E-04	1.118E-03	0.000E+00
0.762	0.9752	3.9414E-03	7.137E-04	4.837E-04	-1.779E-04	8.981E-04	0.000E+00
0.825	0.9854	3.8050E-03	5.085E-04	3.689E-04	-1.025E-04	6.581E-04	0.000E+00
0.889	0.9915	6.2143E-03	3.903E-04	2.976E-04	-6.179E-05	5.159E-04	0.000E+00
1.016	1.0007	6.2051E-03	1.984E-04	1.895E-04	-8.744E-07	2.909E-04	0.000E+00
1.143	1.0029	4.9603E-03	1.385E-04	1.442E-04	1.306E-05	2.120E-04	0.000E+00
1.270	1.0036	3.9641E-03	1.298E-04	1.340E-04	1.874E-05	1.978E-04	0.000E+00
1.397	1.0027	3.9542E-03	1.172E-04	1.232E-04	1.553E-05	1.803E-04	0.000E+00
1.524	1.0025	2.7089E-03	1.175E-04	1.226E-04	1.866E-05	1.801E-04	0.000E+00
1.778	1.0025	-6.2622E-04	1.190E-04	1.225E-04	1.565E-05	1.811E-04	0.000E+00
2.032	1.0002	-1.2932E-03	1.088E-04	1.169E-04	8.464E-06	1.693E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = -2.500$ cm; Obtained 6/19/85-17:33:40 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.5373	3.2731E-03	3.933E-02	1.154E-02	-6.415E-04	3.815E-02	1.666E-02
0.102	0.6503	1.5986E-02	2.334E-02	8.048E-03	-1.264E-03	2.354E-02	3.102E-03
0.152	0.7106	2.5816E-02	1.523E-02	5.808E-03	-1.782E-03	1.578E-02	7.659E-04
0.203	0.7580	3.0024E-02	9.955E-03	4.422E-03	-2.456E-03	1.078E-02	3.447E-04
0.254	0.7876	2.9403E-02	8.029E-03	3.660E-03	-2.730E-03	8.767E-03	7.659E-05
0.317	0.8278	2.4206E-02	5.316E-03	2.917E-03	-2.277E-03	6.175E-03	0.000E+00
0.381	0.8587	1.8817E-02	3.886E-03	2.384E-03	-1.841E-03	4.703E-03	0.000E+00
0.444	0.8852	1.3090E-02	2.958E-03	1.946E-03	-1.449E-03	3.678E-03	0.000E+00
0.508	0.9065	9.8636E-03	2.427E-03	1.537E-03	-1.106E-03	2.973E-03	0.000E+00
0.572	0.9294	4.7031E-03	1.641E-03	1.079E-03	-6.412E-04	2.040E-03	0.000E+00
0.635	0.9474	2.3762E-03	1.233E-03	8.033E-04	-3.910E-04	1.527E-03	0.000E+00
0.698	0.9576	3.9995E-03	1.082E-03	7.068E-04	-3.496E-04	1.342E-03	0.000E+00
0.762	0.9714	2.6153E-03	7.748E-04	5.060E-04	-2.057E-04	9.606E-04	0.000E+00
0.825	0.9826	2.8202E-03	5.588E-04	3.854E-04	-1.185E-04	7.082E-04	0.000E+00
0.889	0.9913	3.3793E-03	3.694E-04	2.929E-04	-5.677E-05	4.967E-04	0.000E+00
1.016	0.9999	3.4127E-03	2.068E-04	1.908E-04	-4.176E-06	2.982E-04	0.000E+00
1.143	1.0020	2.7814E-03	1.410E-04	1.451E-04	8.215E-06	2.146E-04	0.000E+00
1.270	1.0041	3.0156E-03	1.212E-04	1.300E-04	1.435E-05	1.884E-04	0.000E+00
1.397	1.0026	1.1636E-03	1.163E-04	1.205E-04	1.428E-05	1.776E-04	0.000E+00
1.524	1.0016	2.4398E-04	1.121E-04	1.168E-04	1.331E-05	1.717E-04	0.000E+00
1.778	1.0008	-2.4971E-03	1.162E-04	1.194E-04	1.375E-05	1.768E-04	0.000E+00
2.032	1.0002	-2.2803E-03	1.115E-04	1.185E-04	1.477E-05	1.725E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = -2.000$ cm; Obtained 6/19/85-18:49:33
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.2434	-7.1912E-03	4.223E-02	1.676E-02	-1.349E-03	4.425E-02	1.299E-01
0.102	0.4039	7.9417E-03	3.906E-02	1.757E-02	1.739E-04	4.247E-02	3.263E-02
0.152	0.5113	3.3315E-02	2.922E-02	1.480E-02	2.819E-04	3.302E-02	7.085E-03
0.203	0.5834	5.1690E-02	2.425E-02	1.186E-02	-2.498E-05	2.708E-02	3.294E-03
0.254	0.6548	6.3381E-02	1.899E-02	8.603E-03	-6.249E-04	2.069E-02	1.187E-03
0.317	0.7091	7.6704E-02	1.402E-02	6.489E-03	-1.874E-03	1.538E-02	4.596E-04
0.381	0.7508	8.0475E-02	1.108E-02	5.487E-03	-2.612E-03	1.242E-02	7.659E-05
0.444	0.8050	7.4358E-02	8.630E-03	4.636E-03	-3.496E-03	9.949E-03	0.000E+00
0.508	0.8411	6.8266E-02	7.440E-03	4.195E-03	-3.743E-03	8.726E-03	0.000E+00
0.572	0.8804	5.2359E-02	6.015E-03	3.857E-03	-3.671E-03	7.404E-03	0.000E+00
0.635	0.9128	3.9657E-02	4.284E-03	3.298E-03	-2.949E-03	5.686E-03	0.000E+00
0.698	0.9477	1.9781E-02	2.722E-03	2.141E-03	-1.833E-03	3.647E-03	0.000E+00
0.762	0.9638	1.3312E-02	1.863E-03	1.545E-03	-1.242E-03	2.556E-03	0.000E+00
0.825	0.9791	8.3559E-03	1.035E-03	8.980E-04	-6.149E-04	1.450E-03	0.000E+00
0.889	0.9902	4.6771E-03	5.167E-04	4.475E-04	-2.101E-04	7.231E-04	0.000E+00
1.016	1.0007	3.8416E-03	2.150E-04	2.052E-04	-2.013E-05	3.151E-04	0.000E+00
1.143	1.0031	1.2466E-03	1.453E-04	1.522E-04	1.026E-05	2.232E-04	0.000E+00
1.270	1.0039	6.9151E-04	1.289E-04	1.376E-04	2.071E-05	1.999E-04	0.000E+00
1.397	1.0020	-1.4706E-03	1.193E-04	1.249E-04	1.815E-05	1.831E-04	0.000E+00
1.524	1.0021	-2.0524E-03	1.170E-04	1.227E-04	2.168E-05	1.798E-04	0.000E+00
1.778	1.0013	-3.1798E-03	1.170E-04	1.222E-04	1.289E-05	1.794E-04	0.000E+00
2.032	1.0002	-1.7091E-03	1.222E-04	1.277E-04	2.329E-05	1.874E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = -1.500$ cm; Obtained 6/19/85-19:02:28
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.1001	-2.6343E-03	3.267E-02	1.951E-02	-1.029E-03	3.914E-02	3.168E-01
0.102	0.2076	-7.2506E-03	3.555E-02	2.155E-02	-1.416E-03	4.290E-02	1.490E-01
0.152	0.3356	8.0112E-03	3.466E-02	1.978E-02	-1.700E-05	4.083E-02	4.871E-02
0.203	0.4304	2.4056E-02	2.944E-02	1.818E-02	1.117E-03	3.571E-02	1.628E-02
0.254	0.5046	4.5025E-02	2.592E-02	1.505E-02	1.889E-03	3.073E-02	7.085E-03
0.317	0.5818	7.1180E-02	2.012E-02	1.176E-02	1.305E-03	2.392E-02	1.953E-03
0.381	0.6496	8.7533E-02	1.453E-02	8.998E-03	4.131E-04	1.764E-02	4.596E-04
0.444	0.7010	1.0196E-01	1.151E-02	6.611E-03	-5.674E-04	1.359E-02	1.915E-04
0.508	0.7534	1.0876E-01	8.779E-03	4.760E-03	-1.172E-03	1.015E-02	7.659E-05
0.572	0.7893	1.1127E-01	7.200E-03	3.812E-03	-1.897E-03	8.259E-03	0.000E+00
0.635	0.8365	1.0482E-01	6.099E-03	3.486E-03	-2.701E-03	7.189E-03	0.000E+00
0.698	0.8719	9.2429E-02	5.313E-03	3.489E-03	-3.041E-03	6.601E-03	0.000E+00
0.762	0.9007	7.9310E-02	4.945E-03	3.634E-03	-3.384E-03	6.434E-03	0.000E+00
0.825	0.9426	5.1520E-02	3.524E-03	3.341E-03	-2.926E-03	5.149E-03	0.000E+00
0.889	0.9660	3.5376E-02	2.275E-03	2.570E-03	-2.044E-03	3.634E-03	0.000E+00
1.016	0.9922	9.9909E-03	6.401E-04	9.278E-04	-5.535E-04	1.176E-03	0.000E+00
1.143	1.0007	9.8366E-04	1.942E-04	2.703E-04	-3.414E-05	3.484E-04	0.000E+00
1.270	1.0022	-1.1857E-03	1.338E-04	1.509E-04	9.863E-06	2.135E-04	0.000E+00
1.397	1.0030	-3.8157E-03	1.168E-04	1.190E-04	1.008E-05	1.768E-04	0.000E+00
1.524	1.0021	-2.5966E-03	1.297E-04	1.351E-04	2.244E-05	1.986E-04	0.000E+00
1.778	1.0018	-2.9883E-03	1.247E-04	1.324E-04	2.082E-05	1.928E-04	0.000E+00
2.032	1.0002	-2.2902E-03	1.325E-04	1.382E-04	2.719E-05	2.030E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = -1.000$ cm; Obtained 6/19/85-20:49:12
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	-0.0108	3.1717E-03	2.345E-02	1.174E-02	-6.650E-04	2.639E-02	5.887E-01
0.102	0.0783	-7.1167E-03	3.242E-02	1.607E-02	-2.875E-03	3.637E-02	3.773E-01
0.152	0.1828	-1.5049E-03	3.730E-02	1.938E-02	-2.225E-03	4.251E-02	1.930E-01
0.203	0.2591	4.6150E-03	3.747E-02	1.928E-02	-1.905E-03	4.256E-02	1.064E-01
0.254	0.3577	2.1767E-02	3.689E-02	1.771E-02	-2.130E-04	4.096E-02	4.553E-02
0.317	0.4555	4.4860E-02	2.932E-02	1.628E-02	4.454E-04	3.420E-02	1.302E-02
0.381	0.5265	6.4148E-02	2.487E-02	1.344E-02	8.274E-04	2.873E-02	5.361E-03
0.444	0.5963	8.3329E-02	1.913E-02	1.091E-02	1.401E-03	2.253E-02	1.570E-03
0.508	0.6506	9.9340E-02	1.421E-02	8.610E-03	9.651E-04	1.712E-02	2.681E-04
0.572	0.6987	1.0704E-01	1.134E-02	6.664E-03	7.848E-04	1.350E-02	7.659E-05
0.635	0.7483	1.2114E-01	8.688E-03	4.826E-03	1.781E-04	1.014E-02	3.833E-05
0.698	0.7760	1.2954E-01	6.577E-03	3.610E-03	-3.393E-04	7.640E-03	0.000E+00
0.762	0.8112	1.3424E-01	5.549E-03	2.855E-03	-8.419E-04	6.303E-03	0.000E+00
0.825	0.8475	1.3574E-01	4.325E-03	2.175E-03	-1.230E-03	4.875E-03	0.000E+00
0.889	0.8866	1.2460E-01	3.542E-03	2.103E-03	-1.670E-03	4.233E-03	0.000E+00
1.016	0.9349	9.6063E-02	2.346E-03	2.903E-03	-2.174E-03	3.937E-03	0.000E+00
1.143	0.9698	5.2403E-02	1.453E-03	3.055E-03	-1.833E-03	3.381E-03	0.000E+00
1.270	0.9973	8.3233E-03	3.642E-04	8.815E-04	-3.947E-04	9.342E-04	0.000E+00
1.397	1.0000	9.5721E-06	1.368E-04	2.038E-04	-3.183E-05	2.555E-04	0.000E+00
1.524	1.0013	-1.2045E-03	1.335E-04	1.795E-04	-1.292E-05	2.347E-04	0.000E+00
1.778	1.0008	-1.3722E-03	1.177E-04	1.208E-04	1.768E-05	1.789E-04	0.000E+00
2.032	1.0002	-2.6799E-03	1.130E-04	1.163E-04	1.331E-05	1.719E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = -0.500$ cm; Obtained 6/19/85-22:57:42
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	-0.0219	4.1217E-03	2.491E-02	1.516E-02	-1.298E-04	3.005E-02	6.266E-01
0.102	0.0379	1.0174E-02	2.940E-02	1.723E-02	2.575E-04	3.497E-02	4.756E-01
0.152	0.1009	7.0469E-03	3.326E-02	1.819E-02	-1.325E-03	3.859E-02	3.280E-01
0.203	0.1733	9.6840E-03	3.701E-02	1.808E-02	-1.684E-03	4.132E-02	2.066E-01
0.254	0.2415	9.7802E-03	3.788E-02	1.792E-02	-2.102E-03	4.185E-02	1.217E-01
0.317	0.3232	1.6927E-02	3.662E-02	1.625E-02	-1.208E-03	3.966E-02	5.672E-02
0.381	0.4149	3.1323E-02	3.242E-02	1.540E-02	-2.001E-05	3.586E-02	1.961E-02
0.444	0.4948	5.5794E-02	2.664E-02	1.369E-02	4.127E-04	3.024E-02	5.974E-03
0.508	0.5836	7.6733E-02	2.010E-02	1.095E-02	1.527E-03	2.329E-02	1.494E-03
0.572	0.6308	9.1608E-02	1.625E-02	9.238E-03	1.283E-03	1.912E-02	2.681E-04
0.635	0.6740	1.0568E-01	1.317E-02	7.417E-03	1.016E-03	1.544E-02	2.681E-04
0.698	0.7107	1.1586E-01	9.582E-03	5.453E-03	6.907E-04	1.128E-02	3.833E-05
0.762	0.7522	1.3033E-01	7.760E-03	4.106E-03	1.344E-04	8.900E-03	3.833E-05
0.825	0.7892	1.3898E-01	6.032E-03	3.111E-03	-9.593E-05	6.857E-03	0.000E+00
0.889	0.8226	1.4626E-01	4.319E-03	2.319E-03	-4.986E-04	4.978E-03	0.000E+00
1.016	0.8823	1.4289E-01	2.532E-03	1.392E-03	-8.523E-04	2.943E-03	0.000E+00
1.143	0.9224	1.2412E-01	1.375E-03	1.629E-03	-1.106E-03	2.254E-03	0.000E+00
1.270	0.9591	7.5750E-02	1.302E-03	3.121E-03	-1.735E-03	3.317E-03	0.000E+00
1.397	0.9821	3.3859E-02	8.751E-04	2.436E-03	-1.240E-03	2.483E-03	0.000E+00
1.524	0.9982	1.3058E-03	2.504E-04	4.835E-04	-1.394E-04	5.504E-04	0.000E+00
1.651	1.0005	-2.2409E-03	1.404E-04	1.501E-04	1.493E-05	2.178E-04	0.000E+00
1.778	0.9999	-1.4997E-03	1.406E-04	1.552E-04	1.559E-05	2.219E-04	0.000E+00
1.905	1.0020	-2.6582E-03	1.194E-04	1.215E-04	1.696E-05	1.807E-04	0.000E+00
2.032	0.9993	-4.2152E-03	1.148E-04	1.189E-04	1.125E-05	1.753E-04	0.000E+00
2.286	1.0005	-3.6525E-03	1.161E-04	1.217E-04	1.800E-05	1.783E-04	0.000E+00
2.540	1.0002	-5.2782E-03	1.694E-04	1.738E-04	3.899E-05	2.574E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = 0.000$ cm; Obtained 6/19/85-21:28:05 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.0101	1.1416E-02	2.802E-02	2.197E-02	9.215E-03	3.750E-02	5.736E-01
0.102	0.0129	2.1048E-03	2.551E-02	1.768E-02	6.242E-03	3.239E-02	5.445E-01
0.152	0.0533	-1.1250E-02	2.974E-02	1.697E-02	2.341E-03	3.503E-02	4.408E-01
0.203	0.1052	-1.3061E-02	3.419E-02	1.693E-02	1.129E-03	3.834E-02	3.240E-01
0.254	0.1645	-1.0654E-02	3.838E-02	1.750E-02	-1.216E-04	4.191E-02	2.253E-01
0.317	0.2461	2.7096E-04	3.976E-02	1.759E-02	-1.561E-04	4.301E-02	1.234E-01
0.381	0.3204	1.2398E-02	3.834E-02	1.810E-02	-1.269E-04	4.233E-02	6.235E-02
0.444	0.4007	2.9714E-02	3.417E-02	1.626E-02	1.015E-04	3.783E-02	2.436E-02
0.508	0.4689	4.3215E-02	3.015E-02	1.535E-02	7.221E-04	3.412E-02	1.038E-02
0.572	0.5360	5.6112E-02	2.482E-02	1.368E-02	1.563E-03	2.887E-02	3.179E-03
0.635	0.6004	7.5152E-02	2.008E-02	1.033E-02	1.459E-03	2.280E-02	8.425E-04
0.698	0.6410	8.9611E-02	1.551E-02	9.110E-03	1.321E-03	1.846E-02	5.745E-04
0.762	0.6933	1.0825E-01	1.165E-02	6.659E-03	8.724E-04	1.373E-02	3.833E-05
0.825	0.7306	1.1961E-01	9.331E-03	5.632E-03	8.919E-04	1.122E-02	7.659E-05
0.889	0.7673	1.3304E-01	7.343E-03	4.190E-03	4.876E-04	8.650E-03	0.000E+00
1.016	0.8373	1.5458E-01	3.913E-03	1.939E-03	-1.219E-04	4.389E-03	0.000E+00
1.143	0.8861	1.6099E-01	1.436E-03	8.434E-04	-3.463E-04	1.709E-03	0.000E+00
1.270	0.9102	1.5293E-01	8.012E-04	7.809E-04	-4.755E-04	1.187E-03	0.000E+00
1.397	0.9312	1.2781E-01	7.262E-04	1.428E-03	-7.763E-04	1.615E-03	0.000E+00
1.524	0.9562	8.1374E-02	1.012E-03	2.803E-03	-1.441E-03	2.861E-03	0.000E+00
1.651	0.9879	2.2531E-02	6.396E-04	1.905E-03	-9.163E-04	1.908E-03	0.000E+00
1.778	0.9990	3.2886E-04	2.001E-04	4.092E-04	-1.401E-04	4.570E-04	0.000E+00
1.905	1.0009	-2.6775E-03	1.292E-04	1.594E-04	-2.639E-06	2.164E-04	0.000E+00
2.032	1.0001	-3.6928E-03	1.123E-04	1.199E-04	1.082E-05	1.742E-04	0.000E+00
2.286	1.0001	-2.7760E-03	1.147E-04	1.200E-04	1.042E-05	1.761E-04	0.000E+00
2.540	1.0002	-4.2335E-03	1.313E-04	1.379E-04	1.939E-05	2.019E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = 0.433$ cm; Obtained 6/20/85-17:44:40 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.0943	-6.5917E-03	3.357E-02	1.534E-02	3.923E-03	3.668E-02	3.604E-01
0.102	0.1768	-4.5077E-03	4.020E-02	1.753E-02	1.779E-03	4.329E-02	2.168E-01
0.152	0.2355	-3.8460E-03	4.241E-02	1.930E-02	6.726E-04	4.628E-02	1.451E-01
0.203	0.2954	-1.1735E-03	4.265E-02	1.949E-02	7.455E-04	4.660E-02	9.130E-02
0.254	0.3505	1.0672E-02	4.128E-02	1.956E-02	1.229E-03	4.563E-02	5.741E-02
0.317	0.4132	2.8465E-02	3.782E-02	1.906E-02	1.829E-03	4.266E-02	2.964E-02
0.381	0.4836	4.6346E-02	3.253E-02	1.754E-02	2.058E-03	3.756E-02	1.333E-02
0.444	0.5290	6.8239E-02	2.879E-02	1.623E-02	1.438E-03	3.376E-02	7.468E-03
0.508	0.5848	8.3727E-02	2.359E-02	1.427E-02	1.790E-03	2.839E-02	2.451E-03
0.572	0.6371	9.8729E-02	1.991E-02	1.215E-02	1.671E-03	2.405E-02	1.685E-03
0.635	0.6829	1.1443E-01	1.531E-02	9.794E-03	1.472E-03	1.883E-02	5.361E-04
0.698	0.7261	1.2727E-01	1.123E-02	7.184E-03	1.334E-03	1.381E-02	1.915E-04
0.762	0.7662	1.4230E-01	8.486E-03	5.415E-03	7.751E-04	1.043E-02	0.000E+00
0.825	0.8077	1.5451E-01	5.943E-03	3.666E-03	4.196E-04	7.207E-03	3.833E-05
0.889	0.8367	1.6230E-01	4.428E-03	2.578E-03	1.818E-04	5.255E-03	0.000E+00
1.016	0.8852	1.7414E-01	1.548E-03	9.258E-04	-2.973E-04	1.855E-03	0.000E+00
1.143	0.9028	1.7216E-01	6.504E-04	5.207E-04	-2.762E-04	8.783E-04	0.000E+00
1.270	0.9156	1.5797E-01	4.354E-04	6.156E-04	-3.001E-04	7.883E-04	0.000E+00
1.397	0.9283	1.3228E-01	5.393E-04	1.141E-03	-5.708E-04	1.260E-03	0.000E+00
1.524	0.9549	8.3375E-02	9.370E-04	2.614E-03	-1.356E-03	2.663E-03	0.000E+00
1.651	0.9865	2.4340E-02	6.670E-04	1.888E-03	-8.990E-04	1.916E-03	0.000E+00
1.778	0.9971	2.3496E-03	2.326E-04	4.665E-04	-1.601E-04	5.243E-04	0.000E+00
1.905	1.0016	-2.7558E-03	1.212E-04	1.369E-04	-7.924E-06	1.936E-04	0.000E+00
2.032	1.0006	-3.5958E-03	1.144E-04	1.205E-04	4.143E-06	1.762E-04	0.000E+00
2.286	0.9989	-5.0834E-03	2.165E-04	2.292E-04	1.109E-04	3.343E-04	0.000E+00
2.540	1.0002	-1.9607E-03	1.236E-04	1.282E-04	1.966E-05	1.888E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = 0.866$ cm; Obtained 6/20/85-19:08:00 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.2281	4.4285E-02	3.723E-02	1.619E-02	2.233E-03	4.006E-02	1.279E-01
0.102	0.3073	4.3717E-02	3.880E-02	1.823E-02	1.947E-04	4.278E-02	6.691E-02
0.152	0.3607	3.6683E-02	3.834E-02	1.889E-02	-6.198E-05	4.292E-02	4.105E-02
0.203	0.4073	4.9460E-02	3.729E-02	1.797E-02	3.753E-04	4.145E-02	2.880E-02
0.254	0.4651	6.2929E-02	3.299E-02	1.826E-02	4.480E-04	3.844E-02	1.398E-02
0.317	0.5111	7.7033E-02	3.074E-02	1.638E-02	1.344E-03	3.534E-02	9.689E-03
0.381	0.5649	9.5304E-02	2.572E-02	1.465E-02	1.508E-03	3.028E-02	4.328E-03
0.444	0.6024	1.0919E-01	2.286E-02	1.374E-02	1.591E-03	2.745E-02	1.991E-03
0.508	0.6535	1.2475E-01	1.845E-02	1.141E-02	1.641E-03	2.239E-02	1.302E-03
0.572	0.7023	1.4332E-01	1.409E-02	9.190E-03	1.049E-03	1.746E-02	4.596E-04
0.635	0.7374	1.5603E-01	1.224E-02	7.310E-03	6.211E-04	1.466E-02	2.298E-04
0.698	0.7747	1.6514E-01	8.692E-03	5.623E-03	9.778E-04	1.074E-02	0.000E+00
0.762	0.8121	1.7778E-01	6.300E-03	3.734E-03	3.167E-04	7.525E-03	0.000E+00
0.825	0.8438	1.8607E-01	4.160E-03	2.426E-03	-1.220E-04	4.940E-03	3.833E-05
0.889	0.8663	1.8863E-01	2.431E-03	1.480E-03	-3.349E-04	2.933E-03	0.000E+00
1.016	0.8927	1.8454E-01	8.712E-04	6.806E-04	-3.398E-04	1.164E-03	0.000E+00
1.143	0.9064	1.6889E-01	4.362E-04	4.734E-04	-2.235E-04	6.822E-04	0.000E+00
1.270	0.9161	1.5151E-01	4.758E-04	7.726E-04	-3.632E-04	9.363E-04	0.000E+00
1.397	0.9315	1.2630E-01	6.052E-04	1.383E-03	-6.914E-04	1.491E-03	0.000E+00
1.524	0.9519	8.4750E-02	9.589E-04	2.791E-03	-1.420E-03	2.813E-03	0.000E+00
1.651	0.9889	1.4221E-02	5.344E-04	1.439E-03	-6.996E-04	1.480E-03	0.000E+00
1.778	0.9976	5.0345E-04	2.142E-04	4.010E-04	-1.225E-04	4.614E-04	0.000E+00
1.905	0.9985	-3.9382E-03	1.355E-04	1.521E-04	1.951E-05	2.157E-04	0.000E+00
2.032	0.9989	-2.8002E-03	1.330E-04	1.388E-04	2.595E-05	2.039E-04	0.000E+00
2.286	1.0002	-2.7599E-03	1.252E-04	1.299E-04	2.662E-05	1.913E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = 1.732$ cm; Obtained 6/20/85-20:51:50 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.3839	1.2383E-01	3.161E-02	1.242E-02	9.706E-05	3.302E-02	7.889E-03
0.102	0.4403	1.2223E-01	3.092E-02	1.364E-02	-7.781E-04	3.342E-02	5.898E-03
0.152	0.4829	1.1875E-01	2.889E-02	1.517E-02	-6.688E-04	3.304E-02	3.523E-03
0.203	0.5136	1.1636E-01	2.725E-02	1.598E-02	2.370E-04	3.242E-02	2.489E-03
0.254	0.5535	1.2622E-01	2.414E-02	1.567E-02	1.146E-03	2.986E-02	2.068E-03
0.317	0.5967	1.4231E-01	2.127E-02	1.389E-02	1.939E-03	2.638E-02	1.034E-03
0.381	0.6378	1.5956E-01	1.718E-02	1.206E-02	2.189E-03	2.193E-02	4.596E-04
0.444	0.6749	1.8177E-01	1.511E-02	1.012E-02	2.483E-03	1.892E-02	3.831E-04
0.508	0.7181	2.0414E-01	1.171E-02	8.007E-03	2.511E-03	1.479E-02	2.682E-04
0.572	0.7541	2.1891E-01	8.792E-03	6.167E-03	2.052E-03	1.122E-02	1.150E-04
0.635	0.7834	2.3680E-01	5.823E-03	4.114E-03	9.791E-04	7.453E-03	3.839E-05
0.698	0.8087	2.4496E-01	3.300E-03	2.534E-03	4.649E-04	4.750E-03	0.000E+00
0.762	0.8265	2.4771E-01	2.400E-03	1.539E-03	-2.192E-04	2.954E-03	0.000E+00
0.825	0.8416	2.4241E-01	1.678E-03	1.108E-03	-5.499E-04	2.089E-03	0.000E+00
0.889	0.8554	2.3322E-01	1.354E-03	9.790E-04	-6.460E-04	1.749E-03	0.000E+00
1.016	0.8784	2.0615E-01	1.042E-03	9.790E-04	-7.221E-04	1.515E-03	0.000E+00
1.143	0.9020	1.7493E-01	7.362E-04	8.849E-04	-5.814E-04	1.216E-03	0.000E+00
1.270	0.9191	1.4811E-01	6.195E-04	1.053E-03	-5.683E-04	1.255E-03	0.000E+00
1.397	0.9440	1.0324E-01	8.452E-04	2.146E-03	-1.102E-03	2.243E-03	0.000E+00
1.524	0.9797	3.7729E-02	8.581E-04	2.500E-03	-1.268E-03	2.519E-03	0.000E+00
1.651	0.9976	2.6046E-03	2.857E-04	5.861E-04	-2.420E-04	6.538E-04	0.000E+00
1.778	1.0006	-3.1128E-03	1.500E-04	2.144E-04	-2.919E-05	2.732E-04	0.000E+00
1.905	1.0019	-4.3704E-03	1.311E-04	1.399E-04	1.208E-05	2.033E-04	0.000E+00
2.032	1.0006	-4.5099E-03	1.301E-04	1.332E-04	9.764E-06	1.975E-04	0.000E+00
2.286	1.0002	-4.9313E-03	1.312E-04	1.357E-04	1.299E-05	2.001E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = 2.598$ cm; Obtained 6/20/85-21:13:32
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.4351	1.8125E-01	2.457E-02	9.984E-03	1.284E-03	2.591E-02	3.447E-04
0.102	0.4912	1.8023E-01	2.358E-02	1.101E-02	-7.720E-04	2.594E-02	1.149E-04
0.152	0.5256	1.7560E-01	2.255E-02	1.265E-02	-1.014E-03	2.640E-02	1.915E-04
0.203	0.5559	1.7517E-01	2.122E-02	1.297E-02	-3.633E-04	2.564E-02	2.298E-04
0.254	0.5912	1.7979E-01	1.923E-02	1.202E-02	7.929E-04	2.343E-02	7.659E-05
0.317	0.6334	1.9963E-01	1.579E-02	1.079E-02	1.691E-03	1.993E-02	1.532E-04
0.381	0.6652	2.1288E-01	1.314E-02	9.482E-03	2.667E-03	1.697E-02	0.000E+00
0.444	0.7002	2.3755E-01	9.706E-03	7.386E-03	2.650E-03	1.282E-02	0.000E+00
0.508	0.7261	2.5753E-01	7.095E-03	5.529E-03	2.089E-03	9.468E-03	3.839E-05
0.572	0.7479	2.7730E-01	4.696E-03	3.639E-03	1.199E-03	6.252E-03	0.000E+00
0.635	0.7653	2.8493E-01	3.265E-03	2.621E-03	7.447E-04	4.414E-03	0.000E+00
0.698	0.7793	2.9304E-01	2.109E-03	1.436E-03	1.662E-04	2.658E-03	0.000E+00
0.762	0.7871	2.9302E-01	1.643E-03	1.024E-03	-3.777E-05	2.000E-03	0.000E+00
0.825	0.7955	2.8957E-01	1.354E-03	7.558E-04	-2.564E-04	1.582E-03	0.000E+00
0.889	0.8041	2.8236E-01	1.202E-03	6.735E-04	-3.567E-04	1.406E-03	0.000E+00
1.016	0.8280	2.5873E-01	1.140E-03	7.606E-04	-6.126E-04	1.426E-03	0.000E+00
1.143	0.8612	2.2108E-01	1.317E-03	1.259E-03	-1.033E-03	1.932E-03	0.000E+00
1.270	0.9009	1.6507E-01	1.461E-03	2.139E-03	-1.506E-03	2.700E-03	0.000E+00
1.397	0.9479	8.9453E-02	1.460E-03	3.332E-03	-1.913E-03	3.594E-03	0.000E+00
1.524	0.9848	2.3414E-02	8.175E-04	2.109E-03	-1.110E-03	2.195E-03	0.000E+00
1.651	0.9985	-1.8757E-03	2.350E-04	4.013E-04	-1.121E-04	4.772E-04	0.000E+00
1.778	1.0010	-3.9643E-03	1.390E-04	1.517E-04	4.914E-06	2.180E-04	0.000E+00
1.905	0.9999	-6.3193E-03	1.357E-04	1.397E-04	2.465E-05	2.066E-04	0.000E+00
2.032	1.0003	-5.2336E-03	1.416E-04	1.439E-04	2.249E-05	2.141E-04	0.000E+00
2.286	1.0003	-5.8923E-03	1.363E-04	1.426E-04	1.226E-05	2.092E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = 3.464$ cm; Obtained 6/20/85-22:19:36
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.5059	2.3245E-01	1.751E-02	8.470E-03	7.264E-04	1.948E-02	3.833E-05
0.102	0.5482	2.2977E-01	1.710E-02	8.837E-03	-4.059E-04	1.945E-02	0.000E+00
0.152	0.5802	2.2339E-01	1.587E-02	9.506E-03	-7.641E-06	1.903E-02	0.000E+00
0.203	0.6085	2.2662E-01	1.487E-02	9.176E-03	6.160E-04	1.804E-02	0.000E+00
0.254	0.6349	2.3648E-01	1.303E-02	8.470E-03	1.144E-03	1.613E-02	0.000E+00
0.317	0.6598	2.4647E-01	1.118E-02	7.488E-03	1.680E-03	1.400E-02	0.000E+00
0.381	0.6875	2.6221E-01	8.204E-03	6.293E-03	1.950E-03	1.087E-02	0.000E+00
0.444	0.7042	2.8112E-01	6.887E-03	5.152E-03	1.601E-03	9.030E-03	0.000E+00
0.508	0.7233	2.9378E-01	4.684E-03	3.747E-03	1.339E-03	6.323E-03	0.000E+00
0.572	0.7368	3.0645E-01	3.279E-03	2.579E-03	8.573E-04	4.393E-03	0.000E+00
0.635	0.7449	3.1447E-01	2.267E-03	1.683E-03	3.644E-04	2.962E-03	0.000E+00
0.698	0.7512	3.1790E-01	1.708E-03	1.172E-03	1.758E-04	2.160E-03	0.000E+00
0.762	0.7587	3.1868E-01	1.301E-03	8.284E-04	8.263E-06	1.597E-03	0.000E+00
0.825	0.7636	3.1811E-01	1.079E-03	6.434E-04	-8.420E-05	1.292E-03	0.000E+00
0.889	0.7691	3.1512E-01	9.061E-04	5.119E-04	-1.282E-04	1.063E-03	0.000E+00
1.016	0.7787	3.0603E-01	7.590E-04	4.100E-04	-2.082E-04	8.767E-04	0.000E+00
1.143	0.7984	2.8644E-01	8.882E-04	5.186E-04	-3.741E-04	1.055E-03	0.000E+00
1.270	0.8260	2.4686E-01	1.439E-03	1.263E-03	-9.461E-04	2.026E-03	0.000E+00
1.397	0.8881	1.5722E-01	2.863E-03	4.062E-03	-2.938E-03	5.193E-03	0.000E+00
1.524	0.9779	2.9929E-02	2.010E-03	3.678E-03	-2.458E-03	4.266E-03	0.000E+00
1.651	1.0003	-3.0466E-03	3.262E-04	5.037E-04	-2.463E-04	6.224E-04	0.000E+00
1.778	1.0015	-6.4591E-03	1.501E-04	1.561E-04	6.822E-06	2.296E-04	0.000E+00
1.905	1.0023	-7.7191E-03	1.307E-04	1.350E-04	2.747E-05	1.993E-04	0.000E+00
2.032	1.0012	-8.6897E-03	1.405E-04	1.450E-04	3.069E-05	2.141E-04	0.000E+00
2.286	1.0003	-1.0147E-02	1.280E-04	1.352E-04	1.842E-05	1.974E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = 4.330$ cm; Obtained 6/20/85-22:55:58 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.5468	2.6138E-01	1.380E-02	7.310E-03	5.782E-04	1.583E-02	0.000E+00
0.102	0.5778	2.6114E-01	1.315E-02	7.179E-03	-1.116E-04	1.525E-02	0.000E+00
0.152	0.6050	2.6474E-01	1.197E-02	7.131E-03	-3.096E-04	1.433E-02	0.000E+00
0.203	0.6288	2.6444E-01	1.076E-02	7.051E-03	-6.734E-05	1.336E-02	0.000E+00
0.254	0.6471	2.6848E-01	9.737E-03	6.780E-03	1.616E-04	1.239E-02	0.000E+00
0.317	0.6682	2.7917E-01	7.900E-03	5.930E-03	6.806E-04	1.037E-02	0.000E+00
0.381	0.6855	2.9118E-01	6.484E-03	4.900E-03	6.557E-04	8.538E-03	0.000E+00
0.444	0.7000	3.0143E-01	5.019E-03	3.839E-03	5.437E-04	6.643E-03	0.000E+00
0.508	0.7106	3.1055E-01	3.882E-03	3.141E-03	2.211E-04	5.268E-03	0.000E+00
0.572	0.7202	3.2010E-01	2.957E-03	2.320E-03	-1.086E-04	3.957E-03	0.000E+00
0.635	0.7278	3.2300E-01	2.444E-03	2.036E-03	-1.860E-04	3.360E-03	0.000E+00
0.698	0.7299	3.3093E-01	1.545E-03	1.205E-03	1.594E-04	2.063E-03	0.000E+00
0.762	0.7345	3.3465E-01	1.268E-03	8.547E-04	-3.273E-05	1.592E-03	0.000E+00
0.825	0.7372	3.3584E-01	1.053E-03	7.039E-04	-7.762E-05	1.318E-03	0.000E+00
0.889	0.7415	3.3453E-01	8.250E-04	5.659E-04	-1.173E-04	1.043E-03	0.000E+00
1.016	0.7488	3.2863E-01	6.493E-04	4.663E-04	-1.007E-04	8.367E-04	0.000E+00
1.143	0.7537	3.2024E-01	6.274E-04	3.934E-04	-1.241E-04	7.656E-04	0.000E+00
1.270	0.7560	3.0416E-01	9.417E-04	4.541E-04	-1.658E-04	1.047E-03	0.000E+00
1.397	0.7672	2.7563E-01	1.182E-03	7.033E-04	-4.155E-04	1.414E-03	0.000E+00
1.524	0.8157	2.1220E-01	2.050E-03	2.010E-03	-1.569E-03	3.045E-03	0.000E+00
1.651	0.9264	8.0598E-02	3.881E-03	5.167E-03	-4.151E-03	6.786E-03	0.000E+00
1.778	0.9940	-6.7161E-03	6.487E-04	8.403E-04	-3.798E-04	1.117E-03	0.000E+00
1.905	0.9998	-1.4802E-02	3.205E-04	3.499E-04	1.839E-04	5.029E-04	0.000E+00
2.032	0.9997	-1.3446E-02	2.221E-04	2.357E-04	1.122E-04	3.434E-04	0.000E+00
2.286	1.0007	-1.3425E-02	1.431E-04	1.479E-04	2.937E-05	2.182E-04	0.000E+00
2.540	1.0001	-1.3679E-02	1.452E-04	1.511E-04	2.882E-05	2.222E-04	0.000E+00
2.794	1.0004	-1.2133E-02	1.555E-04	1.550E-04	2.244E-05	2.329E-04	0.000E+00

TABLE 8.- CONTINUED

 $\alpha = 0^\circ$; $x = 4.763$ cm; Obtained 6/24/85-17:23:44 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.5815	2.7863E-01	1.195E-02	6.893E-03	3.946E-04	1.413E-02	0.000E+00
0.102	0.6100	2.7634E-01	1.067E-02	7.365E-03	6.095E-05	1.353E-02	0.000E+00
0.152	0.6262	2.7567E-01	1.010E-02	7.628E-03	-1.336E-04	1.330E-02	0.000E+00
0.203	0.6459	2.8078E-01	8.723E-03	6.999E-03	1.308E-04	1.179E-02	0.000E+00
0.254	0.6595	2.8657E-01	7.939E-03	6.606E-03	2.038E-04	1.091E-02	0.000E+00
0.317	0.6783	2.9688E-01	6.287E-03	5.382E-03	6.802E-04	8.752E-03	0.000E+00
0.381	0.6912	3.0558E-01	5.423E-03	4.631E-03	6.173E-04	7.541E-03	0.000E+00
0.444	0.7034	3.1438E-01	4.072E-03	3.778E-03	6.353E-04	5.887E-03	0.000E+00
0.508	0.7138	3.2445E-01	3.088E-03	2.795E-03	3.445E-04	4.412E-03	0.000E+00
0.572	0.7183	3.3123E-01	2.618E-03	2.175E-03	9.125E-05	3.595E-03	0.000E+00
0.635	0.7173	3.3249E-01	3.261E-03	2.152E-03	-5.955E-05	4.060E-03	0.000E+00
0.698	0.7303	3.4029E-01	1.779E-03	1.063E-03	-2.615E-05	1.756E-03	0.000E+00
0.762	0.7339	3.4199E-01	1.151E-03	8.609E-04	-1.449E-04	1.509E-03	0.000E+00
0.825	0.7371	3.4342E-01	8.673E-04	6.617E-04	-1.466E-04	1.147E-03	0.000E+00
0.889	0.7389	3.4238E-01	7.955E-04	6.069E-04	-1.688E-04	1.052E-03	0.000E+00
1.016	0.7411	3.3550E-01	6.356E-04	4.408E-04	-1.127E-04	8.073E-04	0.000E+00
1.143	0.7394	3.2456E-01	7.213E-04	3.909E-04	-6.141E-05	8.341E-04	0.000E+00
1.270	0.7374	3.1382E-01	8.026E-04	3.638E-04	-5.440E-05	8.747E-04	0.000E+00
1.397	0.7455	2.9766E-01	8.463E-04	3.933E-04	-1.342E-04	9.297E-04	0.000E+00
1.524	0.7667	2.6529E-01	1.169E-03	8.550E-04	-6.071E-04	1.518E-03	0.000E+00
1.651	0.8422	1.7512E-01	2.263E-03	2.653E-03	-2.122E-03	3.687E-03	0.000E+00
1.778	0.9781	1.6739E-02	2.431E-03	3.255E-03	-2.622E-03	4.264E-03	0.000E+00
1.905	1.0011	-1.3803E-02	2.086E-04	2.429E-04	-7.794E-05	3.386E-04	0.000E+00
2.032	1.0012	-1.4552E-02	1.318E-04	1.377E-04	9.549E-06	2.022E-04	0.000E+00
2.159	1.0003	-1.4740E-02	1.206E-04	1.244E-04	2.510E-06	1.838E-04	0.000E+00
2.286	1.0004	-1.5556E-02	1.214E-04	1.253E-04	8.722E-06	1.850E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = 5.196$ cm; Obtained 6/24/85-18:48:53
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.5912	2.9389E-01	6.874E-03	5.253E-03	1.373E-03	9.095E-03	0.000E+00
0.102	0.6183	2.9067E-01	6.486E-03	5.613E-03	7.700E-04	9.074E-03	0.000E+00
0.152	0.6399	2.8811E-01	6.210E-03	5.767E-03	2.158E-04	8.983E-03	0.000E+00
0.203	0.6530	2.9115E-01	6.278E-03	5.672E-03	8.172E-05	8.962E-03	0.000E+00
0.254	0.6664	2.9458E-01	5.665E-03	5.151E-03	1.233E-04	8.112E-03	0.000E+00
0.317	0.6830	3.0224E-01	4.734E-03	4.395E-03	1.511E-04	6.847E-03	0.000E+00
0.381	0.6909	3.0907E-01	4.480E-03	4.099E-03	9.271E-05	6.435E-03	0.000E+00
0.444	0.7011	3.1550E-01	3.657E-03	3.439E-03	1.746E-04	5.322E-03	0.000E+00
0.508	0.7084	3.2406E-01	2.916E-03	2.731E-03	5.562E-05	4.235E-03	0.000E+00
0.572	0.7142	3.2849E-01	2.520E-03	2.352E-03	1.033E-05	3.654E-03	0.000E+00
0.635	0.7193	3.3282E-01	1.965E-03	1.864E-03	-1.200E-04	2.872E-03	0.000E+00
0.698	0.7241	3.3819E-01	1.239E-03	1.153E-03	-2.905E-05	1.795E-03	0.000E+00
0.762	0.7271	3.4044E-01	1.007E-03	8.997E-04	-3.230E-05	1.430E-03	0.000E+00
0.825	0.7311	3.4192E-01	8.270E-04	7.473E-04	-1.277E-04	1.181E-03	0.000E+00
0.889	0.7331	3.4259E-01	7.059E-04	6.060E-04	-1.687E-04	9.839E-04	0.000E+00
1.016	0.7346	3.3991E-01	6.349E-04	4.695E-04	-1.293E-04	8.283E-04	0.000E+00
1.143	0.7288	3.2950E-01	7.439E-04	4.376E-04	-3.070E-05	8.861E-04	0.000E+00
1.270	0.7244	3.2152E-01	7.095E-04	3.521E-04	-4.613E-05	7.962E-04	0.000E+00
1.397	0.7234	3.1143E-01	6.177E-04	3.035E-04	-4.168E-05	6.909E-04	0.000E+00
1.524	0.7316	2.9917E-01	6.344E-04	3.516E-04	-1.143E-04	7.395E-04	0.000E+00
1.651	0.7509	2.7222E-01	8.570E-04	6.697E-04	-4.515E-04	1.145E-03	0.000E+00
1.778	0.8243	1.8639E-01	1.915E-03	2.146E-03	-1.799E-03	3.046E-03	0.000E+00
1.905	0.9541	3.8861E-02	3.017E-03	3.825E-03	-3.196E-03	5.132E-03	0.000E+00
2.032	0.9992	-1.5439E-02	1.858E-04	2.154E-04	-5.851E-05	3.009E-04	0.000E+00
2.159	1.0003	-1.4683E-02	1.211E-04	1.279E-04	1.086E-05	1.868E-04	0.000E+00
2.286	0.9994	-1.2997E-02	1.197E-04	1.241E-04	9.368E-06	1.828E-04	0.000E+00
2.540	1.0004	-1.3538E-02	1.221E-04	1.252E-04	7.915E-06	1.855E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = 5.896$ cm; Obtained 6/24/85-20:32:34
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.8185	2.2429E-02	3.460E-03	1.958E-03	4.355E-04	4.064E-03	0.000E+00
0.102	0.8464	4.9218E-02	3.895E-03	2.269E-03	5.937E-04	4.623E-03	0.000E+00
0.152	0.8563	6.8601E-02	4.070E-03	2.650E-03	8.831E-04	5.040E-03	0.000E+00
0.203	0.8589	8.5346E-02	4.199E-03	2.982E-03	1.020E-03	5.385E-03	0.000E+00
0.254	0.8603	9.9294E-02	3.988E-03	2.954E-03	1.112E-03	5.206E-03	0.000E+00
0.317	0.8541	1.2270E-01	3.904E-03	3.043E-03	1.184E-03	5.210E-03	0.000E+00
0.381	0.8492	1.4626E-01	3.499E-03	3.017E-03	1.262E-03	4.887E-03	0.000E+00
0.444	0.8416	1.7228E-01	3.154E-03	2.856E-03	1.175E-03	4.508E-03	0.000E+00
0.508	0.8316	1.9175E-01	3.114E-03	2.844E-03	1.120E-03	4.468E-03	0.000E+00
0.572	0.8247	2.1451E-01	2.706E-03	2.571E-03	1.003E-03	3.957E-03	0.000E+00
0.635	0.8166	2.3507E-01	2.223E-03	2.244E-03	7.885E-04	3.350E-03	0.000E+00
0.698	0.8100	2.5432E-01	1.817E-03	1.934E-03	5.620E-04	2.813E-03	0.000E+00
0.762	0.8026	2.7065E-01	1.533E-03	1.674E-03	3.815E-04	2.405E-03	0.000E+00
0.825	0.7956	2.8334E-01	1.262E-03	1.420E-03	2.054E-04	2.012E-03	0.000E+00
0.889	0.7894	2.9614E-01	1.022E-03	1.158E-03	3.911E-05	1.634E-03	0.000E+00
1.016	0.7759	3.1343E-01	7.253E-04	8.348E-04	-9.721E-05	1.170E-03	0.000E+00
1.143	0.7658	3.2711E-01	5.186E-04	5.453E-04	-1.510E-04	7.979E-04	0.000E+00
1.270	0.7564	3.3285E-01	3.949E-04	3.422E-04	-1.173E-04	5.528E-04	0.000E+00
1.397	0.7450	3.3264E-01	4.772E-04	2.782E-04	-5.236E-05	5.665E-04	0.000E+00
1.524	0.7295	3.2782E-01	5.779E-04	2.404E-04	-2.240E-05	6.138E-04	0.000E+00
1.651	0.7235	3.2192E-01	5.149E-04	2.050E-04	-5.487E-06	5.399E-04	0.000E+00
1.778	0.7180	3.1730E-01	4.223E-04	1.834E-04	6.272E-06	4.543E-04	0.000E+00
1.905	0.7183	3.1348E-01	3.710E-04	1.724E-04	-3.640E-06	4.076E-04	0.000E+00
2.032	0.7216	3.0714E-01	3.689E-04	2.066E-04	-6.138E-05	4.317E-04	0.000E+00
2.159	0.7292	2.9501E-01	4.242E-04	2.963E-04	-1.725E-04	5.404E-04	0.000E+00
2.286	0.7567	2.6175E-01	8.236E-04	7.645E-04	-6.298E-04	1.191E-03	0.000E+00
2.413	0.8413	1.6596E-01	1.746E-03	2.009E-03	-1.736E-03	2.816E-03	0.000E+00
2.540	0.9887	2.1461E-04	9.620E-04	1.191E-03	-9.439E-04	1.615E-03	0.000E+00
2.667	1.0013	-1.3475E-02	1.254E-04	1.304E-04	6.669E-06	1.918E-04	0.000E+00
2.794	0.9992	-1.3128E-02	1.148E-04	1.173E-04	1.251E-05	1.741E-04	0.000E+00
3.048	1.0004	-1.1804E-02	1.153E-04	1.199E-04	1.222E-05	1.764E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = 6.396$ cm; Obtained 6/24/85-22:13:36
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.8255	3.1768E-04	4.119E-03	1.765E-03	3.120E-04	4.413E-03	0.000E+00
0.102	0.8621	2.1689E-02	3.978E-03	2.049E-03	4.164E-04	4.520E-03	0.000E+00
0.152	0.8771	3.6269E-02	4.302E-03	2.266E-03	5.423E-04	4.926E-03	0.000E+00
0.203	0.8859	4.3491E-02	4.316E-03	2.468E-03	5.236E-04	5.088E-03	0.000E+00
0.254	0.8904	4.8495E-02	4.289E-03	2.605E-03	4.961E-04	5.170E-03	0.000E+00
0.317	0.8926	5.7656E-02	4.239E-03	2.766E-03	4.137E-04	5.254E-03	0.000E+00
0.381	0.8937	6.6104E-02	4.298E-03	2.832E-03	5.244E-04	5.347E-03	0.000E+00
0.444	0.8962	8.1740E-02	4.036E-03	2.754E-03	5.714E-04	5.093E-03	0.000E+00
0.508	0.8946	9.8473E-02	3.737E-03	2.628E-03	6.986E-04	4.774E-03	0.000E+00
0.572	0.8929	1.1534E-01	3.494E-03	2.427E-03	7.876E-04	4.441E-03	0.000E+00
0.635	0.8898	1.3340E-01	3.087E-03	2.175E-03	7.533E-04	3.947E-03	0.000E+00
0.698	0.8836	1.5173E-01	2.820E-03	2.136E-03	7.474E-04	3.717E-03	0.000E+00
0.762	0.8781	1.6994E-01	2.413E-03	1.921E-03	7.957E-04	3.251E-03	0.000E+00
0.825	0.8719	1.8745E-01	2.107E-03	1.768E-03	6.609E-04	2.906E-03	0.000E+00
0.889	0.8664	2.0103E-01	1.716E-03	1.573E-03	6.275E-04	2.467E-03	0.000E+00
1.016	0.8533	2.3058E-01	1.264E-03	1.248E-03	4.175E-04	1.884E-03	0.000E+00
1.143	0.8373	2.5364E-01	8.623E-04	1.006E-03	2.538E-04	1.401E-03	0.000E+00
1.270	0.8229	2.7306E-01	6.001E-04	7.555E-04	9.549E-05	1.017E-03	0.000E+00
1.397	0.8078	2.9188E-01	3.932E-04	4.995E-04	-6.057E-05	6.695E-04	0.000E+00
1.524	0.7913	3.0280E-01	3.740E-04	3.646E-04	-9.435E-05	5.539E-04	0.000E+00
1.778	0.7515	3.0867E-01	5.077E-04	2.153E-04	-8.420E-05	5.422E-04	0.000E+00
2.032	0.7308	3.1130E-01	4.072E-04	1.702E-04	-6.705E-05	4.331E-04	0.000E+00
2.159	0.7264	3.1029E-01	3.493E-04	1.458E-04	-5.390E-05	3.714E-04	0.000E+00
2.286	0.7225	3.0687E-01	3.348E-04	1.495E-04	-6.501E-05	3.632E-04	0.000E+00
2.413	0.7224	3.0345E-01	3.275E-04	1.765E-04	-9.006E-05	3.780E-04	0.000E+00
2.540	0.7271	2.9268E-01	3.844E-04	2.672E-04	-1.831E-04	4.887E-04	0.000E+00
2.667	0.7458	2.7230E-01	5.923E-04	5.094E-04	-4.060E-04	8.263E-04	0.000E+00
2.794	0.8071	2.0406E-01	1.292E-03	1.399E-03	-1.224E-03	2.019E-03	0.000E+00
2.921	0.9374	5.8855E-02	2.249E-03	2.708E-03	-2.332E-03	3.718E-03	0.000E+00
3.048	1.0010	-1.3262E-02	1.216E-04	1.257E-04	1.411E-05	1.855E-04	0.000E+00
3.302	1.0004	-1.1535E-02	1.239E-04	1.271E-04	2.021E-05	1.883E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = 7.396$ cm; Obtained 6/24/85-23:19:10
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.8382	-5.7176E-03	3.598E-03	1.428E-03	-1.667E-04	3.769E-03	0.000E+00
0.102	0.8701	3.6323E-03	3.382E-03	1.627E-03	7.452E-05	3.757E-03	0.000E+00
0.152	0.8854	1.3376E-02	3.481E-03	1.693E-03	2.377E-04	3.881E-03	0.000E+00
0.203	0.9001	1.7667E-02	3.493E-03	1.854E-03	3.391E-04	4.010E-03	0.000E+00
0.254	0.9111	2.3001E-02	3.415E-03	1.909E-03	3.305E-04	3.993E-03	0.000E+00
0.317	0.9097	2.6695E-02	3.458E-03	1.972E-03	3.251E-04	4.073E-03	0.000E+00
0.381	0.9148	3.0622E-02	3.566E-03	1.999E-03	2.980E-04	4.173E-03	0.000E+00
0.444	0.9230	3.3582E-02	3.444E-03	1.972E-03	2.599E-04	4.062E-03	0.000E+00
0.508	0.9264	3.5095E-02	3.555E-03	1.994E-03	2.224E-04	4.162E-03	0.000E+00
0.572	0.9320	3.9114E-02	3.436E-03	1.933E-03	1.955E-04	4.027E-03	0.000E+00
0.635	0.9338	4.0851E-02	3.437E-03	1.931E-03	1.328E-04	4.026E-03	0.000E+00
0.698	0.9423	4.4268E-02	3.189E-03	1.868E-03	1.334E-04	3.793E-03	0.000E+00
0.762	0.9429	4.9838E-02	3.082E-03	1.793E-03	1.477E-04	3.656E-03	0.000E+00
0.825	0.9435	5.6665E-02	2.868E-03	1.611E-03	1.867E-04	3.359E-03	0.000E+00
0.889	0.9431	6.6589E-02	2.704E-03	1.464E-03	2.400E-04	3.126E-03	0.000E+00
1.016	0.9449	8.4735E-02	1.895E-03	1.152E-03	2.973E-04	2.285E-03	0.000E+00
1.143	0.9354	1.0359E-01	1.690E-03	1.284E-03	5.488E-04	2.230E-03	0.000E+00
1.270	0.9322	1.2972E-01	9.698E-04	7.740E-04	2.197E-04	1.308E-03	0.000E+00
1.397	0.9197	1.5075E-01	7.706E-04	7.009E-04	2.366E-04	1.104E-03	0.000E+00
1.524	0.9121	1.6880E-01	5.050E-04	5.527E-04	1.518E-04	7.933E-04	0.000E+00
1.778	0.8852	2.0239E-01	3.273E-04	4.382E-04	1.001E-04	5.741E-04	0.000E+00
2.032	0.8458	2.2510E-01	3.482E-04	3.035E-04	3.019E-05	4.888E-04	0.000E+00
2.286	0.8167	2.4217E-01	2.201E-04	1.670E-04	-3.494E-05	2.903E-04	0.000E+00
2.540	0.7944	2.5668E-01	1.868E-04	1.421E-04	-1.152E-05	2.466E-04	0.000E+00
2.794	0.7740	2.6963E-01	1.731E-04	1.347E-04	-2.264E-05	2.309E-04	0.000E+00
2.921	0.7643	2.7260E-01	1.689E-04	1.353E-04	-2.472E-05	2.282E-04	0.000E+00
3.048	0.7582	2.7651E-01	1.741E-04	1.392E-04	-3.276E-05	2.350E-04	0.000E+00
3.175	0.7525	2.8032E-01	1.801E-04	1.508E-04	-3.742E-05	2.482E-04	0.000E+00
3.302	0.7489	2.8179E-01	1.904E-04	1.534E-04	-5.491E-05	2.578E-04	0.000E+00
3.556	0.7608	2.6842E-01	4.796E-04	4.355E-04	-3.349E-04	6.864E-04	0.000E+00
3.683	0.8099	2.1262E-01	1.258E-03	1.338E-03	-1.179E-03	1.947E-03	0.000E+00
3.810	0.9178	8.7505E-02	2.003E-03	2.434E-03	-2.064E-03	3.328E-03	0.000E+00
3.937	1.0003	-6.2536E-03	1.196E-04	1.224E-04	1.519E-05	1.815E-04	0.000E+00

TABLE 8.- CONTINUED
 $\alpha = 0^\circ$; $x = 8.396$ cm; Obtained 6/25/85-19:11:33
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.8423	-7.1525E-04	3.286E-03	1.528E-03	-4.951E-04	3.610E-03	0.000E+00
0.102	0.8742	2.8627E-03	2.780E-03	1.468E-03	-1.869E-04	3.186E-03	0.000E+00
0.152	0.8952	8.6142E-03	2.703E-03	1.566E-03	4.892E-05	3.202E-03	0.000E+00
0.203	0.9075	1.4996E-02	2.713E-03	1.643E-03	2.032E-04	3.267E-03	0.000E+00
0.254	0.9157	2.0885E-02	2.783E-03	1.702E-03	2.830E-04	3.364E-03	0.000E+00
0.317	0.9252	2.3924E-02	2.795E-03	1.712E-03	3.893E-04	3.380E-03	0.000E+00
0.381	0.9295	2.6032E-02	2.767E-03	1.775E-03	4.120E-04	3.406E-03	0.000E+00
0.444	0.9345	2.7685E-02	2.794E-03	1.772E-03	4.093E-04	3.425E-03	0.000E+00
0.508	0.9369	2.8187E-02	2.798E-03	1.755E-03	4.203E-04	3.415E-03	0.000E+00
0.572	0.9417	2.9792E-02	2.772E-03	1.672E-03	4.161E-04	3.333E-03	0.000E+00
0.635	0.9474	3.1142E-02	2.688E-03	1.667E-03	3.573E-04	3.266E-03	0.000E+00
0.698	0.9540	3.1772E-02	2.507E-03	1.573E-03	3.234E-04	3.060E-03	0.000E+00
0.762	0.9579	3.3732E-02	2.404E-03	1.430E-03	2.604E-04	2.875E-03	0.000E+00
0.825	0.9597	3.6518E-02	2.399E-03	1.347E-03	2.649E-04	2.810E-03	0.000E+00
0.889	0.9621	3.7371E-02	2.160E-03	1.278E-03	1.800E-04	2.578E-03	0.000E+00
1.016	0.9696	4.1131E-02	1.822E-03	1.073E-03	9.742E-05	2.171E-03	0.000E+00
1.143	0.9716	4.6498E-02	1.481E-03	8.694E-04	8.191E-05	1.763E-03	0.000E+00
1.270	0.9703	5.7120E-02	1.050E-03	6.704E-04	1.031E-04	1.291E-03	0.000E+00
1.397	0.9682	7.4869E-02	7.848E-04	5.294E-04	7.728E-05	9.856E-04	0.000E+00
1.524	0.9620	8.9088E-02	5.276E-04	4.204E-04	6.719E-05	7.111E-04	0.000E+00
1.778	0.9452	1.2032E-01	3.140E-04	3.351E-04	5.217E-05	4.869E-04	0.000E+00
2.032	0.9203	1.4585E-01	2.540E-04	2.650E-04	3.979E-05	3.892E-04	0.000E+00
2.540	0.8666	1.9168E-01	1.681E-04	1.377E-04	-2.933E-05	2.294E-04	0.000E+00
3.048	0.8294	2.2446E-01	1.254E-04	1.072E-04	-8.293E-06	1.744E-04	0.000E+00
3.556	0.7992	2.5049E-01	1.073E-04	9.877E-05	-4.447E-06	1.546E-04	0.000E+00
3.810	0.7882	2.5927E-01	1.096E-04	1.040E-04	-2.153E-05	1.602E-04	0.000E+00
4.064	0.7813	2.6497E-01	1.386E-04	1.283E-04	-4.336E-05	2.002E-04	0.000E+00
4.318	0.7891	2.5524E-01	3.351E-04	3.382E-04	-2.447E-04	5.050E-04	0.000E+00
4.572	0.9057	1.0628E-01	1.801E-03	2.493E-03	-1.989E-03	3.221E-03	0.000E+00
4.826	0.9966	-2.4039E-03	1.070E-04	1.042E-04	1.376E-05	1.583E-04	0.000E+00
5.080	0.9987	3.1711E-04	1.073E-04	1.042E-04	1.434E-05	1.586E-04	0.000E+00
5.334	1.0001	1.6855E-03	1.084E-04	1.082E-04	8.227E-06	1.625E-04	0.000E+00

TABLE 8.- CONCLUDED
 $\alpha = 0^\circ$; $x = 9.396$ cm; Obtained 6/25/85-17:51:23
 $P_T = 1.7$ atm; $T_T = 276.9$ K; $u_\infty = 582.5$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.8564	6.1687E-03	3.249E-03	1.596E-03	-6.566E-04	3.633E-03	0.000E+00
0.102	0.8864	5.9492E-03	2.667E-03	1.432E-03	-3.059E-04	3.074E-03	0.000E+00
0.152	0.9047	9.2700E-03	2.433E-03	1.403E-03	-1.668E-04	2.876E-03	0.000E+00
0.203	0.9169	1.3698E-02	2.456E-03	1.439E-03	-3.351E-05	2.921E-03	0.000E+00
0.254	0.9248	1.7044E-02	2.492E-03	1.515E-03	1.104E-04	3.005E-03	0.000E+00
0.317	0.9351	1.9548E-02	2.388E-03	1.582E-03	2.394E-04	2.977E-03	0.000E+00
0.381	0.9375	2.2510E-02	2.556E-03	1.693E-03	3.710E-04	3.187E-03	0.000E+00
0.444	0.9446	2.4628E-02	2.430E-03	1.634E-03	3.778E-04	3.048E-03	0.000E+00
0.508	0.9499	2.6576E-02	2.459E-03	1.622E-03	4.524E-04	3.061E-03	0.000E+00
0.572	0.9549	2.5054E-02	2.365E-03	1.567E-03	4.597E-04	2.949E-03	0.000E+00
0.635	0.9583	2.6144E-02	2.276E-03	1.499E-03	4.424E-04	2.831E-03	0.000E+00
0.698	0.9598	2.6767E-02	2.203E-03	1.446E-03	4.445E-04	2.736E-03	0.000E+00
0.762	0.9649	2.7689E-02	2.091E-03	1.325E-03	3.654E-04	2.562E-03	0.000E+00
0.825	0.9714	2.7944E-02	1.932E-03	1.217E-03	3.249E-04	2.362E-03	0.000E+00
0.889	0.9725	2.9712E-02	1.774E-03	1.093E-03	2.799E-04	2.150E-03	0.000E+00
1.016	0.9784	3.0065E-02	1.526E-03	9.558E-04	2.195E-04	1.861E-03	0.000E+00
1.143	0.9841	3.0932E-02	1.193E-03	7.799E-04	1.071E-04	1.480E-03	0.000E+00
1.270	0.9873	3.1570E-02	9.060E-04	6.350E-04	5.310E-05	1.156E-03	0.000E+00
1.397	0.9881	3.3245E-02	7.346E-04	5.623E-04	2.576E-05	9.726E-04	0.000E+00
1.524	0.9873	3.7615E-02	5.723E-04	4.566E-04	8.940E-06	7.717E-04	0.000E+00
1.778	0.9797	5.7611E-02	3.378E-04	3.094E-04	1.989E-05	4.854E-04	0.000E+00
2.032	0.9642	8.3017E-02	2.439E-04	2.439E-04	4.271E-05	3.658E-04	0.000E+00
2.540	0.9190	1.2698E-01	2.079E-04	1.778E-04	1.882E-06	2.892E-04	0.000E+00
3.048	0.8851	1.7105E-01	1.500E-04	1.319E-04	-8.415E-06	2.114E-04	0.000E+00
3.556	0.8547	1.9954E-01	1.232E-04	1.161E-04	-2.336E-06	1.794E-04	0.000E+00
4.064	0.8299	2.2296E-01	1.012E-04	9.712E-05	-6.861E-06	1.487E-04	0.000E+00
4.572	0.8148	2.4480E-01	1.094E-04	1.070E-04	-9.204E-06	1.623E-04	0.000E+00
4.826	0.8119	2.5240E-01	1.430E-04	1.428E-04	-4.352E-05	2.143E-04	0.000E+00
5.080	0.8259	2.3340E-01	4.007E-04	4.986E-04	-3.429E-04	6.745E-04	0.000E+00
5.334	0.9676	3.9857E-02	1.327E-03	1.928E-03	-1.455E-03	2.442E-03	0.000E+00
5.588	0.9988	6.4778E-04	1.160E-04	1.112E-04	9.096E-06	1.704E-04	0.000E+00
5.842	1.0001	1.2294E-03	1.230E-04	1.146E-04	3.797E-07	1.782E-04	0.000E+00

TABLE 9.- LDV FLOW-FIELD DATA
 $\alpha = 5^\circ$, $x = -5.500$ cm; Obtained 9/12/85-21:02:09
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.6928	8.5581E-03	5.417E-03	1.793E-03	-1.128E-03	5.408E-03	0.000E+00
0.102	0.7404	7.7371E-03	4.369E-03	1.620E-03	-1.048E-03	4.492E-03	0.000E+00
0.152	0.7749	7.2728E-03	3.901E-03	1.624E-03	-1.060E-03	4.144E-03	0.000E+00
0.203	0.7971	4.8422E-03	3.548E-03	1.544E-03	-1.020E-03	3.819E-03	0.000E+00
0.254	0.8212	6.4418E-03	3.239E-03	1.516E-03	-9.575E-04	3.566E-03	0.000E+00
0.317	0.8492	4.3565E-03	2.811E-03	1.381E-03	-8.951E-04	3.143E-03	0.000E+00
0.381	0.8772	2.7731E-03	2.553E-03	1.206E-03	-7.839E-04	2.819E-03	0.000E+00
0.444	0.8941	4.3337E-03	2.218E-03	1.074E-03	-6.884E-04	2.469E-03	0.000E+00
0.508	0.9110	3.7165E-03	1.881E-03	9.603E-04	-5.868E-04	2.131E-03	0.000E+00
0.572	0.9302	3.9641E-03	1.593E-03	8.065E-04	-4.725E-04	1.799E-03	0.000E+00
0.635	0.9458	4.5980E-03	1.291E-03	6.884E-04	-3.553E-04	1.484E-03	0.000E+00
0.698	0.9601	5.3823E-03	9.737E-04	5.594E-04	-2.427E-04	1.150E-03	0.000E+00
0.762	0.9755	6.9104E-03	7.483E-04	4.418E-04	-1.722E-04	8.926E-04	0.000E+00
0.825	0.9853	9.1605E-03	5.329E-04	3.464E-04	-1.140E-04	6.595E-04	0.000E+00
0.889	0.9933	8.9368E-03	3.640E-04	2.653E-04	-6.781E-05	4.720E-04	0.000E+00
1.016	0.9991	1.0902E-02	1.745E-04	1.663E-04	-1.962E-05	2.556E-04	0.000E+00
1.143	1.0027	1.0380E-02	1.217E-04	1.237E-04	-3.394E-06	1.841E-04	0.000E+00
1.270	1.0004	1.3581E-02	1.161E-04	1.188E-04	2.457E-06	1.761E-04	0.000E+00
1.397	1.0017	1.1122E-02	1.066E-04	1.102E-04	1.309E-05	1.626E-04	0.000E+00
1.524	1.0007	1.0345E-02	1.147E-04	1.177E-04	1.674E-05	1.743E-04	0.000E+00
1.778	1.0005	8.7425E-03	9.987E-05	1.002E-04	6.793E-06	1.500E-04	0.000E+00
2.032	0.9999	1.1305E-02	9.133E-05	9.276E-05	-1.981E-07	1.381E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = -4.500$ cm; Obtained 9/12/85-21:28:11
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.6829	7.8695E-03	5.786E-03	1.836E-03	-1.175E-03	5.717E-03	0.000E+00
0.102	0.7404	6.9339E-03	4.663E-03	1.618E-03	-1.132E-03	4.711E-03	0.000E+00
0.152	0.7745	6.2741E-03	3.934E-03	1.722E-03	-1.096E-03	4.242E-03	0.000E+00
0.203	0.8030	5.5858E-03	3.500E-03	1.616E-03	-1.031E-03	3.838E-03	0.000E+00
0.254	0.8255	4.9324E-03	3.201E-03	1.545E-03	-9.946E-04	3.560E-03	0.000E+00
0.317	0.8526	3.6618E-03	2.811E-03	1.390E-03	-8.975E-04	3.151E-03	0.000E+00
0.381	0.8707	4.8884E-03	2.458E-03	1.278E-03	-8.054E-04	2.802E-03	0.000E+00
0.444	0.8965	6.5704E-03	2.083E-03	1.104E-03	-6.811E-04	2.391E-03	0.000E+00
0.508	0.9136	5.1221E-03	1.814E-03	9.950E-04	-5.870E-04	2.107E-03	0.000E+00
0.572	0.9322	4.8610E-03	1.552E-03	8.169E-04	-4.872E-04	1.777E-03	0.000E+00
0.635	0.9470	4.5148E-03	1.325E-03	7.055E-04	-3.963E-04	1.523E-03	0.000E+00
0.698	0.9630	4.8221E-03	9.859E-04	5.848E-04	-2.575E-04	1.178E-03	0.000E+00
0.762	0.9745	5.8926E-03	7.487E-04	4.350E-04	-1.762E-04	8.878E-04	0.000E+00
0.825	0.9831	6.2065E-03	5.539E-04	3.475E-04	-1.273E-04	6.760E-04	0.000E+00
0.889	0.9912	8.0157E-03	3.819E-04	2.660E-04	-8.174E-05	4.859E-04	0.000E+00
1.016	1.0009	3.0540E-03	1.959E-04	1.701E-04	-3.580E-05	2.745E-04	0.000E+00
1.143	1.0026	1.0103E-02	1.240E-04	1.260E-04	-9.054E-06	1.875E-04	0.000E+00
1.270	1.0028	8.8611E-03	1.097E-04	1.111E-04	1.092E-06	1.656E-04	0.000E+00
1.397	1.0025	8.6634E-03	1.082E-04	1.083E-04	-1.379E-06	1.623E-04	0.000E+00
1.524	1.0034	7.9994E-03	1.133E-04	1.097E-04	8.709E-06	1.672E-04	0.000E+00
1.778	1.0051	7.6543E-03	1.123E-04	1.131E-04	4.281E-06	1.690E-04	0.000E+00
2.032	1.0000	7.4073E-03	1.035E-04	1.068E-04	-3.774E-06	1.577E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = -4.000$ cm; Obtained 9/12/85-22:31:41
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.6736	1.0279E-02	7.723E-03	1.878E-03	-1.180E-03	7.201E-03	3.830E-04
0.102	0.7343	1.1103E-02	5.501E-03	1.704E-03	-1.234E-03	5.404E-03	7.659E-05
0.152	0.7721	8.9514E-03	4.566E-03	1.598E-03	-1.164E-03	4.623E-03	0.000E+00
0.203	0.7996	9.1102E-03	3.945E-03	1.673E-03	-1.141E-03	4.214E-03	0.000E+00
0.254	0.8227	8.9029E-03	3.462E-03	1.551E-03	-1.047E-03	3.759E-03	0.000E+00
0.317	0.8490	6.2057E-03	3.067E-03	1.422E-03	-9.514E-04	3.366E-03	0.000E+00
0.381	0.8748	5.6660E-03	2.495E-03	1.245E-03	-7.878E-04	2.805E-03	0.000E+00
0.444	0.8937	6.3124E-03	2.184E-03	1.115E-03	-6.791E-04	2.474E-03	0.000E+00
0.508	0.9135	3.7167E-03	1.886E-03	9.516E-04	-5.699E-04	2.128E-03	0.000E+00
0.572	0.9304	5.3080E-03	1.556E-03	8.212E-04	-4.533E-04	1.783E-03	0.000E+00
0.635	0.9481	4.6519E-03	1.275E-03	6.716E-04	-3.546E-04	1.460E-03	0.000E+00
0.698	0.9582	4.3673E-03	9.908E-04	5.951E-04	-2.579E-04	1.189E-03	0.000E+00
0.762	0.9674	5.9123E-03	8.504E-04	5.139E-04	-1.975E-04	1.023E-03	0.000E+00
0.825	0.9822	6.1664E-03	5.863E-04	3.750E-04	-1.161E-04	7.210E-04	0.000E+00
0.889	0.9877	7.7916E-03	4.188E-04	2.979E-04	-6.178E-05	5.376E-04	0.000E+00
1.016	0.9999	7.3507E-03	1.958E-04	1.858E-04	-1.354E-05	2.862E-04	0.000E+00
1.143	1.0017	7.5279E-03	1.460E-04	1.491E-04	7.374E-06	2.214E-04	0.000E+00
1.270	1.0023	8.6534E-03	1.355E-04	1.362E-04	7.085E-06	2.038E-04	0.000E+00
1.397	1.0021	7.8334E-03	1.177E-04	1.176E-04	1.261E-05	1.765E-04	0.000E+00
1.524	1.0026	6.7932E-03	1.156E-04	1.132E-04	1.174E-05	1.716E-04	0.000E+00
1.778	1.0033	6.2541E-03	1.190E-04	1.190E-04	3.928E-06	1.785E-04	0.000E+00
2.032	1.0000	3.9928E-03	1.234E-04	1.292E-04	3.474E-05	1.895E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = -3.500$ cm; Obtained 9/9/85-20:57:02
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.6444	2.4607E-02	2.080E-02	5.006E-03	-2.370E-03	1.936E-02	3.408E-03
0.102	0.7143	2.4991E-02	1.340E-02	4.128E-03	-2.532E-03	1.315E-02	7.659E-04
0.152	0.7625	2.1031E-02	8.211E-03	3.161E-03	-2.383E-03	8.529E-03	1.915E-04
0.203	0.7954	1.7356E-02	6.199E-03	2.671E-03	-2.128E-03	6.653E-03	7.659E-05
0.254	0.8180	1.6268E-02	6.222E-03	2.629E-03	-2.182E-03	6.639E-03	3.833E-05
0.317	0.8492	1.2795E-02	4.140E-03	2.228E-03	-1.790E-03	4.776E-03	0.000E+00
0.381	0.8763	9.0137E-03	2.961E-03	1.766E-03	-1.252E-03	3.545E-03	0.000E+00
0.444	0.8964	7.5432E-03	2.422E-03	1.542E-03	-1.052E-03	2.973E-03	0.000E+00
0.508	0.9124	5.0745E-03	2.015E-03	1.245E-03	-7.852E-04	2.445E-03	0.000E+00
0.572	0.9321	3.2813E-03	1.451E-03	9.147E-04	-4.790E-04	1.774E-03	0.000E+00
0.635	0.9473	4.1033E-03	1.290E-03	7.903E-04	-4.312E-04	1.560E-03	0.000E+00
0.698	0.9595	3.2217E-03	9.685E-04	6.187E-04	-2.789E-04	1.190E-03	0.000E+00
0.762	0.9726	4.4996E-03	7.155E-04	5.041E-04	-2.057E-04	9.147E-04	0.000E+00
0.825	0.9833	5.2654E-03	5.241E-04	3.685E-04	-1.060E-04	6.694E-04	0.000E+00
0.889	0.9905	5.6933E-03	3.759E-04	2.863E-04	-7.413E-05	4.966E-04	0.000E+00
1.016	1.0009	6.9433E-03	1.909E-04	1.851E-04	-1.336E-05	2.820E-04	0.000E+00
1.143	1.0038	7.0382E-03	1.311E-04	1.379E-04	7.722E-06	2.018E-04	0.000E+00
1.270	1.0029	8.1509E-03	1.224E-04	1.256E-04	9.285E-06	1.860E-04	0.000E+00
1.397	1.0036	6.6788E-03	1.072E-04	1.105E-04	1.246E-05	1.632E-04	0.000E+00
1.524	1.0028	6.5759E-03	1.186E-04	1.254E-04	2.706E-05	1.830E-04	0.000E+00
1.778	1.0014	4.2849E-03	1.153E-04	1.186E-04	4.789E-06	1.754E-04	0.000E+00
2.032	1.0000	2.1825E-03	1.101E-04	1.127E-04	1.201E-05	1.671E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = -3.000$ cm; Obtained 9/9/85-21:56:21
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.4267	4.5321E-02	5.138E-02	1.308E-02	-4.380E-04	4.835E-02	4.082E-02
0.102	0.5884	4.5723E-02	3.499E-02	9.372E-03	-1.929E-03	3.327E-02	5.898E-03
0.152	0.6216	6.1118E-02	2.935E-02	8.024E-03	-2.538E-03	2.803E-02	3.408E-03
0.203	0.6980	6.0771E-02	2.193E-02	6.111E-03	-4.145E-03	2.103E-02	8.425E-04
0.254	0.7473	6.0121E-02	1.528E-02	5.247E-03	-4.512E-03	1.540E-02	2.298E-04
0.317	0.7820	5.7380E-02	1.260E-02	5.212E-03	-4.880E-03	1.336E-02	1.532E-04
0.381	0.8297	4.5333E-02	9.655E-03	4.560E-03	-4.743E-03	1.066E-02	0.000E+00
0.444	0.8637	3.9638E-02	6.644E-03	3.935E-03	-3.899E-03	7.934E-03	0.000E+00
0.508	0.8960	2.5718E-02	4.825E-03	3.117E-03	-2.911E-03	5.956E-03	0.000E+00
0.572	0.9231	1.7627E-02	3.136E-03	2.269E-03	-1.929E-03	4.054E-03	0.000E+00
0.635	0.9400	1.6047E-02	2.752E-03	2.003E-03	-1.731E-03	3.566E-03	0.000E+00
0.698	0.9603	9.2329E-03	1.355E-03	1.030E-03	-7.091E-04	1.789E-03	0.000E+00
0.762	0.9728	9.1053E-03	1.035E-03	8.172E-04	-5.332E-04	1.389E-03	0.000E+00
0.825	0.9842	7.7097E-03	6.640E-04	5.302E-04	-2.864E-04	8.956E-04	0.000E+00
0.889	0.9932	6.4197E-03	3.790E-04	3.162E-04	-1.103E-04	5.214E-04	0.000E+00
1.016	1.0009	7.4166E-03	1.870E-04	1.769E-04	-3.053E-05	2.729E-04	0.000E+00
1.143	1.0032	7.4645E-03	1.315E-04	1.347E-04	-3.992E-06	1.997E-04	0.000E+00
1.270	1.0048	6.4088E-03	1.154E-04	1.192E-04	3.887E-06	1.759E-04	0.000E+00
1.397	1.0028	4.3858E-03	1.050E-04	1.065E-04	8.856E-06	1.586E-04	0.000E+00
1.524	1.0033	3.0375E-03	1.177E-04	1.201E-04	3.496E-06	1.784E-04	0.000E+00
1.778	1.0022	5.5231E-04	9.829E-05	1.009E-04	7.536E-06	1.494E-04	0.000E+00
2.032	1.0000	2.3778E-03	9.755E-05	1.026E-04	1.663E-05	1.501E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = -2.500$ cm; Obtained 9/9/85-23:27:37
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.2059	3.6623E-02	4.151E-02	1.376E-02	2.317E-03	4.146E-02	1.672E-01
0.102	0.3553	5.3143E-02	4.231E-02	1.359E-02	1.796E-03	4.193E-02	5.277E-02
0.152	0.4625	7.0158E-02	3.669E-02	1.155E-02	6.607E-04	3.617E-02	1.582E-02
0.203	0.5378	7.9764E-02	3.216E-02	9.287E-03	2.315E-04	3.108E-02	6.434E-03
0.254	0.5978	8.9677E-02	2.566E-02	7.764E-03	-3.718E-04	2.507E-02	1.877E-03
0.317	0.6555	1.0378E-01	2.032E-02	6.568E-03	-1.683E-03	2.017E-02	6.893E-04
0.381	0.7257	1.0319E-01	1.594E-02	5.498E-03	-3.636E-03	1.608E-02	7.659E-05
0.444	0.7674	1.0516E-01	1.224E-02	5.002E-03	-4.208E-03	1.293E-02	7.659E-05
0.508	0.7973	1.0009E-01	1.167E-02	5.114E-03	-4.938E-03	1.259E-02	0.000E+00
0.572	0.8562	8.0247E-02	8.346E-03	5.048E-03	-5.165E-03	1.005E-02	0.000E+00
0.635	0.8900	6.3278E-02	6.753E-03	4.792E-03	-4.773E-03	8.659E-03	0.000E+00
0.698	0.9260	4.5198E-02	4.885E-03	4.008E-03	-3.791E-03	6.669E-03	0.000E+00
0.762	0.9431	3.9207E-02	3.895E-03	3.526E-03	-3.204E-03	5.566E-03	0.000E+00
0.825	0.9682	2.3810E-02	2.317E-03	2.231E-03	-1.915E-03	3.411E-03	0.000E+00
0.889	0.9831	1.5081E-02	1.155E-03	1.293E-03	-9.533E-04	1.836E-03	0.000E+00
1.016	0.9980	8.1303E-03	3.240E-04	4.240E-04	-2.130E-04	5.610E-04	0.000E+00
1.143	1.0018	7.5274E-03	1.558E-04	1.981E-04	-2.895E-05	2.654E-04	0.000E+00
1.270	1.0022	3.5326E-03	1.042E-04	1.220E-04	5.228E-06	1.697E-04	0.000E+00
1.397	1.0032	1.1106E-03	9.040E-05	9.556E-05	3.707E-06	1.395E-04	0.000E+00
1.524	1.0018	1.6139E-03	9.788E-05	1.015E-04	1.264E-05	1.495E-04	0.000E+00
1.778	1.0007	1.0844E-03	8.787E-05	8.851E-05	7.542E-06	1.323E-04	0.000E+00
2.032	1.0000	1.7212E-03	9.347E-05	9.645E-05	3.584E-06	1.424E-04	0.000E+00

TABLE 9.- CONTINUED

 $\alpha = 5^\circ$, $x = -2.000$ cm; Obtained 9/10/85-17:42:55 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.0476	1.3079E-02	3.224E-02	1.056E-02	1.611E-03	3.210E-02	4.333E-01
0.102	0.1626	1.9628E-02	3.992E-02	1.318E-02	9.178E-04	3.983E-02	2.229E-01
0.152	0.2799	2.9165E-02	4.193E-02	1.176E-02	8.646E-04	4.027E-02	9.976E-02
0.203	0.3651	4.4105E-02	3.942E-02	1.188E-02	1.494E-03	3.847E-02	4.592E-02
0.254	0.4514	6.7724E-02	3.493E-02	1.181E-02	1.536E-03	3.506E-02	1.850E-02
0.317	0.5446	9.5040E-02	2.795E-02	9.745E-03	6.320E-04	2.827E-02	4.979E-03
0.381	0.6243	1.0649E-01	2.126E-02	8.029E-03	1.686E-04	2.197E-02	9.957E-04
0.444	0.6555	1.1705E-01	1.757E-02	6.755E-03	8.199E-05	1.824E-02	4.979E-04
0.508	0.7080	1.3085E-01	1.362E-02	5.337E-03	-1.095E-03	1.422E-02	3.064E-04
0.572	0.7554	1.3548E-01	1.108E-02	4.372E-03	-2.112E-03	1.159E-02	1.532E-04
0.635	0.7916	1.3460E-01	9.228E-03	3.899E-03	-2.637E-03	9.845E-03	0.000E+00
0.698	0.8239	1.3076E-01	8.111E-03	3.859E-03	-3.235E-03	8.977E-03	0.000E+00
0.762	0.8667	1.1884E-01	6.713E-03	4.114E-03	-3.865E-03	8.121E-03	3.833E-05
0.825	0.9048	9.8473E-02	5.675E-03	4.690E-03	-4.325E-03	7.773E-03	0.000E+00
0.889	0.9344	7.9021E-02	4.675E-03	4.669E-03	-4.023E-03	7.008E-03	0.000E+00
1.016	0.9699	4.6441E-02	2.355E-03	3.681E-03	-2.605E-03	4.527E-03	0.000E+00
1.143	0.9981	9.7490E-03	4.433E-04	9.400E-04	-4.709E-04	1.037E-03	0.000E+00
1.270	1.0009	5.2871E-03	2.120E-04	4.119E-04	-1.548E-04	4.679E-04	0.000E+00
1.397	1.0013	1.5687E-03	1.393E-04	1.673E-04	-1.083E-05	2.300E-04	0.000E+00
1.524	1.0014	9.7307E-04	1.255E-04	1.435E-04	2.622E-06	2.018E-04	0.000E+00
1.778	1.0017	-2.6043E-04	1.088E-04	1.135E-04	1.364E-05	1.667E-04	0.000E+00
2.032	1.0000	1.8785E-03	1.072E-04	1.110E-04	1.507E-05	1.636E-04	0.000E+00

TABLE 9.- CONTINUED

 $\alpha = 5^\circ$, $x = -1.500$ cm; Obtained 9/18/85-17:14:01 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	-0.0179	4.6780E-04	2.594E-02	5.163E-03	-2.233E-04	2.333E-02	5.955E-01
0.102	0.0627	5.7881E-03	3.602E-02	7.177E-03	-5.963E-04	3.240E-02	4.097E-01
0.152	0.1448	1.0091E-02	4.225E-02	7.983E-03	-1.342E-03	3.768E-02	2.698E-01
0.203	0.2284	1.9060E-02	4.561E-02	8.340E-03	-1.093E-03	4.046E-02	1.637E-01
0.254	0.3100	3.1762E-02	4.293E-02	9.677E-03	-3.257E-04	3.945E-02	8.268E-02
0.317	0.3961	4.9854E-02	3.845E-02	1.109E-02	6.358E-04	3.716E-02	3.496E-02
0.381	0.4744	6.8397E-02	3.568E-02	1.078E-02	1.544E-03	3.484E-02	1.670E-02
0.444	0.5393	8.7304E-02	2.965E-02	1.014E-02	1.596E-03	2.985E-02	7.430E-03
0.508	0.6016	1.0425E-01	2.445E-02	8.143E-03	1.337E-03	2.445E-02	2.872E-03
0.572	0.6556	1.1979E-01	1.957E-02	7.231E-03	1.137E-03	2.010E-02	1.111E-03
0.635	0.6966	1.3631E-01	1.626E-02	5.964E-03	1.316E-04	1.667E-02	6.893E-04
0.698	0.7533	1.4754E-01	9.998E-03	4.390E-03	-5.846E-04	1.079E-02	1.149E-04
0.762	0.7821	1.5290E-01	8.612E-03	3.522E-03	-1.074E-03	9.100E-03	3.833E-05
0.825	0.8171	1.5201E-01	7.109E-03	2.909E-03	-1.644E-03	7.513E-03	0.000E+00
0.889	0.8580	1.4621E-01	5.416E-03	2.521E-03	-2.008E-03	5.952E-03	0.000E+00
1.016	0.9155	1.1694E-01	3.318E-03	3.613E-03	-2.851E-03	5.198E-03	0.000E+00
1.143	0.9532	8.2788E-02	2.082E-03	4.087E-03	-2.582E-03	4.627E-03	0.000E+00
1.270	0.9781	4.8396E-02	1.241E-03	3.463E-03	-1.872E-03	3.528E-03	0.000E+00
1.397	0.9948	2.0038E-02	5.661E-04	1.669E-03	-8.306E-04	1.677E-03	0.000E+00
1.524	1.0021	7.1942E-03	2.685E-04	7.276E-04	-3.178E-04	7.470E-04	0.000E+00
1.778	1.0028	9.8159E-04	1.009E-04	1.026E-04	-5.967E-06	1.526E-04	0.000E+00
2.032	1.0000	5.3092E-05	8.849E-05	9.170E-05	-4.375E-06	1.351E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = -1.000$ cm; Obtained 9/10/85-18:22:13
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	-0.0880	1.5198E-03	1.777E-02	6.700E-03	1.143E-03	1.835E-02	7.861E-01
0.102	-0.0210	-9.8275E-04	2.809E-02	9.142E-03	3.572E-04	2.792E-02	6.168E-01
0.152	0.0502	-2.3290E-03	3.567E-02	9.979E-03	-3.663E-04	3.424E-02	4.533E-01
0.203	0.1322	6.8985E-04	4.108E-02	9.587E-03	-1.104E-03	3.800E-02	2.925E-01
0.254	0.2112	1.5754E-02	4.281E-02	1.020E-02	-9.782E-04	3.976E-02	1.752E-01
0.317	0.3050	2.6813E-02	4.064E-02	1.088E-02	-4.963E-04	3.864E-02	7.786E-02
0.381	0.3889	4.9317E-02	3.678E-02	1.102E-02	-3.303E-04	3.584E-02	2.658E-02
0.444	0.4661	6.2631E-02	3.317E-02	1.117E-02	7.326E-04	3.325E-02	1.057E-02
0.508	0.5337	8.7178E-02	2.910E-02	9.900E-03	1.038E-03	2.925E-02	4.557E-03
0.572	0.5831	9.5586E-02	2.565E-02	8.913E-03	1.333E-03	2.593E-02	1.991E-03
0.635	0.6646	9.4579E-02	1.853E-02	9.003E-03	6.214E-04	2.065E-02	4.979E-04
0.698	0.6854	1.2648E-01	1.546E-02	6.764E-03	4.261E-04	1.667E-02	2.681E-04
0.762	0.7243	1.4314E-01	1.129E-02	5.321E-03	-3.727E-04	1.246E-02	1.532E-04
0.825	0.7611	1.5200E-01	8.303E-03	3.763E-03	-6.087E-04	9.050E-03	0.000E+00
0.889	0.8057	1.5801E-01	5.995E-03	2.653E-03	-7.667E-04	6.486E-03	0.000E+00
1.016	0.8565	1.6055E-01	3.624E-03	1.647E-03	-9.050E-04	3.953E-03	0.000E+00
1.143	0.9026	1.5118E-01	1.683E-03	1.533E-03	-1.074E-03	2.412E-03	0.000E+00
1.270	0.9308	1.2467E-01	1.303E-03	2.760E-03	-1.569E-03	3.047E-03	0.000E+00
1.397	0.9628	6.8766E-02	1.333E-03	3.998E-03	-2.068E-03	3.998E-03	0.000E+00
1.524	0.9817	3.7452E-02	9.431E-04	2.978E-03	-1.486E-03	2.941E-03	0.000E+00
1.778	0.9993	2.3401E-03	1.401E-04	2.582E-04	-7.443E-05	2.987E-04	0.000E+00
2.032	1.0000	-5.8689E-04	1.129E-04	1.141E-04	-1.282E-05	1.702E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = -0.500$ cm; Obtained 9/18/85-18:33:27
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	-0.1423	-6.4945E-03	9.421E-03	2.993E-03	-5.838E-05	9.310E-03	9.246E-01
0.102	-0.1105	-1.3748E-02	1.457E-02	4.459E-03	-3.426E-04	1.427E-02	8.591E-01
0.152	-0.0628	-1.2402E-02	2.300E-02	6.147E-03	-7.192E-04	2.186E-02	7.388E-01
0.203	-0.0003	-1.3087E-02	3.383E-02	7.178E-03	-1.124E-03	3.075E-02	5.867E-01
0.254	0.0603	-9.6097E-03	4.066E-02	8.269E-03	-9.971E-04	3.669E-02	4.472E-01
0.317	0.1586	1.5285E-03	4.627E-02	9.424E-03	-1.336E-03	4.177E-02	2.636E-01
0.381	0.2466	1.7182E-02	4.543E-02	1.011E-02	-6.989E-04	4.165E-02	1.420E-01
0.444	0.3231	2.8907E-02	4.190E-02	1.121E-02	-5.075E-04	3.983E-02	7.050E-02
0.508	0.3896	4.4958E-02	3.937E-02	1.091E-02	-1.458E-04	3.771E-02	3.634E-02
0.572	0.4579	6.0027E-02	3.524E-02	1.075E-02	4.368E-04	3.450E-02	1.555E-02
0.635	0.5096	7.3187E-02	3.266E-02	1.035E-02	9.677E-04	3.226E-02	9.191E-03
0.698	0.5616	8.8808E-02	2.794E-02	1.053E-02	1.284E-03	2.886E-02	4.060E-03
0.762	0.6119	1.0559E-01	2.434E-02	9.247E-03	1.144E-03	2.519E-02	2.030E-03
0.825	0.6787	1.2456E-01	1.861E-02	7.312E-03	8.396E-04	1.944E-02	7.660E-04
0.889	0.7109	1.3236E-01	1.599E-02	6.033E-03	7.786E-04	1.652E-02	4.979E-04
1.016	0.7925	1.5710E-01	8.196E-03	3.253E-03	-4.356E-04	8.586E-03	3.833E-05
1.143	0.8499	1.6943E-01	4.278E-03	1.722E-03	-4.826E-04	4.000E-03	0.000E+00
1.270	0.8885	1.7138E-01	1.816E-03	9.568E-04	-5.660E-04	2.079E-03	0.000E+00
1.397	0.9119	1.6169E-01	7.101E-04	8.813E-04	-4.976E-04	1.193E-03	0.000E+00
1.524	0.9316	1.3219E-01	8.789E-04	2.375E-03	-1.201E-03	2.440E-03	0.000E+00
1.778	0.9756	4.6356E-02	9.370E-04	3.064E-03	-1.548E-03	3.001E-03	0.000E+00
2.032	0.9971	6.3392E-03	2.427E-04	6.810E-04	-2.934E-04	6.928E-04	0.000E+00
2.286	0.9986	-1.1011E-05	9.316E-05	1.047E-04	-8.239E-06	1.484E-04	0.000E+00
2.540	1.0000	8.6533E-05	9.034E-05	9.308E-05	-8.987E-06	1.376E-04	0.000E+00

TABLE 9.- CONTINUED

$\alpha = 5^\circ$, $x = 0.000$ cm; Obtained 9/10/85-21:07:45
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	-0.0524	6.2226E-03	2.334E-02	2.076E-02	1.798E-02	3.307E-02	7.259E-01
0.102	-0.0582	-8.4665E-03	2.297E-02	1.787E-02	1.448E-02	3.062E-02	7.266E-01
0.152	-0.0600	-3.6541E-02	2.306E-02	1.120E-02	6.964E-03	2.570E-02	7.276E-01
0.203	-0.0217	-3.3640E-02	3.284E-02	1.191E-02	6.274E-03	3.357E-02	6.344E-01
0.254	0.0324	-3.4131E-02	4.266E-02	1.142E-02	5.399E-03	4.056E-02	5.148E-01
0.317	0.1356	-1.7904E-02	5.103E-02	1.225E-02	4.321E-03	4.746E-02	3.195E-01
0.381	0.2157	-6.1304E-04	5.140E-02	1.316E-02	4.352E-03	4.842E-02	1.973E-01
0.444	0.3042	1.5794E-02	4.599E-02	1.268E-02	2.776E-03	4.400E-02	9.678E-02
0.508	0.3620	2.8234E-02	4.230E-02	1.216E-02	2.176E-03	4.084E-02	5.695E-02
0.572	0.4346	4.9788E-02	3.820E-02	1.104E-02	1.804E-03	3.693E-02	2.466E-02
0.635	0.4809	6.4170E-02	3.545E-02	1.122E-02	1.740E-03	3.501E-02	1.417E-02
0.698	0.5308	7.5443E-02	3.037E-02	1.125E-02	1.881E-03	3.122E-02	6.434E-03
0.762	0.5836	9.5559E-02	2.594E-02	1.084E-02	1.401E-03	2.758E-02	2.068E-03
0.825	0.6312	1.0607E-01	2.239E-02	8.920E-03	1.291E-03	2.348E-02	8.808E-04
0.889	0.6716	1.1759E-01	1.843E-02	7.302E-03	1.034E-03	1.930E-02	3.830E-04
1.016	0.7587	1.4958E-01	1.130E-02	4.716E-03	-4.888E-04	1.201E-02	0.000E+00
1.143	0.8145	1.6525E-01	6.652E-03	2.938E-03	-5.188E-04	7.192E-03	3.833E-05
1.270	0.8658	1.7685E-01	2.987E-03	1.410E-03	-5.605E-04	3.298E-03	0.000E+00
1.397	0.8953	1.8010E-01	1.098E-03	7.176E-04	-3.786E-04	1.362E-03	0.000E+00
1.524	0.9083	1.7263E-01	4.654E-04	5.075E-04	-2.264E-04	7.297E-04	0.000E+00
1.778	0.9341	1.2691E-01	8.287E-04	2.357E-03	-1.177E-03	2.390E-03	0.000E+00
2.032	0.9812	3.5923E-02	8.466E-04	2.753E-03	-1.359E-03	2.699E-03	0.000E+00
2.286	0.9999	1.2133E-03	1.455E-04	2.670E-04	-6.466E-05	3.094E-04	0.000E+00
2.540	0.9999	1.6558E-04	1.093E-04	1.209E-04	6.199E-06	1.726E-04	0.000E+00
2.794	1.0000	1.3703E-03	1.033E-04	1.062E-04	9.436E-06	1.571E-04	0.000E+00

TABLE 9.- CONTINUED

$\alpha = 5^\circ$, $x = 0.410$ cm; Obtained 9/10/85-23:00:26
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.0546	-5.2822E-03	4.012E-02	2.354E-02	1.136E-02	4.774E-02	4.523E-01
0.102	0.0598	-3.0329E-02	4.229E-02	1.844E-02	5.552E-03	4.555E-02	4.444E-01
0.152	0.1092	-3.4438E-02	4.807E-02	1.808E-02	3.687E-03	4.961E-02	3.559E-01
0.203	0.1723	-2.8682E-02	5.206E-02	1.920E-02	3.607E-03	5.345E-02	2.554E-01
0.254	0.2211	-2.1584E-02	5.432E-02	1.874E-02	3.862E-03	5.480E-02	1.981E-01
0.317	0.3172	6.4140E-03	5.018E-02	1.909E-02	4.846E-03	5.195E-02	9.946E-02
0.381	0.3654	2.4859E-02	4.531E-02	2.002E-02	4.549E-03	4.900E-02	6.204E-02
0.444	0.4295	4.7234E-02	4.031E-02	1.884E-02	4.494E-03	4.436E-02	3.251E-02
0.508	0.4834	6.2838E-02	3.688E-02	1.810E-02	4.805E-03	4.124E-02	1.838E-02
0.572	0.5401	8.6671E-02	3.195E-02	1.530E-02	3.897E-03	3.544E-02	8.502E-03
0.635	0.5917	1.0531E-01	2.767E-02	1.377E-02	3.252E-03	3.108E-02	4.634E-03
0.698	0.6424	1.2668E-01	2.404E-02	1.259E-02	2.610E-03	2.748E-02	2.413E-03
0.762	0.6797	1.3893E-01	2.009E-02	1.077E-02	2.217E-03	2.314E-02	9.191E-04
0.825	0.7359	1.5667E-01	1.415E-02	7.552E-03	8.573E-04	1.628E-02	3.447E-04
0.889	0.7678	1.6564E-01	1.233E-02	6.060E-03	4.733E-04	1.379E-02	2.681E-04
1.016	0.8238	1.7945E-01	7.072E-03	3.484E-03	-2.277E-04	7.917E-03	3.833E-05
1.143	0.8791	1.8696E-01	2.543E-03	1.338E-03	-6.035E-04	2.911E-03	0.000E+00
1.270	0.9000	1.8365E-01	9.414E-04	6.790E-04	-3.843E-04	1.215E-03	0.000E+00
1.524	0.9173	1.5835E-01	4.165E-04	7.094E-04	-3.392E-04	8.444E-04	0.000E+00
1.778	0.9534	8.8195E-02	1.116E-03	3.526E-03	-1.778E-03	3.482E-03	0.000E+00
2.032	0.9944	1.1887E-02	3.718E-04	1.041E-03	-4.773E-04	1.060E-03	0.000E+00
2.286	0.9991	3.3270E-03	1.569E-04	2.778E-04	-8.400E-05	3.260E-04	0.000E+00
2.540	0.9997	-6.2052E-04	1.160E-04	1.209E-04	4.449E-06	1.777E-04	0.000E+00
2.794	1.0000	-3.8618E-04	1.070E-04	1.117E-04	-2.118E-06	1.640E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 0.819$ cm; Obtained 9/11/85-16:55:19
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.1366	1.5781E-02	4.173E-02	2.037E-02	7.642E-03	4.657E-02	2.884E-01
0.102	0.1852	1.3208E-02	4.570E-02	1.958E-02	5.038E-03	4.896E-02	2.199E-01
0.152	0.2448	1.3670E-02	4.881E-02	1.908E-02	3.785E-03	5.092E-02	1.581E-01
0.203	0.2939	1.9593E-02	5.006E-02	1.831E-02	3.915E-03	5.127E-02	1.178E-01
0.254	0.3454	3.1446E-02	4.863E-02	1.952E-02	4.265E-03	5.111E-02	7.943E-02
0.317	0.4054	4.6524E-02	4.540E-02	1.860E-02	4.986E-03	4.800E-02	4.864E-02
0.381	0.4566	6.8528E-02	4.127E-02	1.845E-02	5.172E-03	4.479E-02	2.846E-02
0.444	0.5057	8.9658E-02	3.746E-02	1.776E-02	5.333E-03	4.142E-02	1.689E-02
0.508	0.5561	1.0967E-01	3.274E-02	1.627E-02	5.227E-03	3.676E-02	8.885E-03
0.572	0.6062	1.3229E-01	2.884E-02	1.373E-02	4.145E-03	3.192E-02	5.017E-03
0.635	0.6466	1.4924E-01	2.581E-02	1.183E-02	3.758E-03	2.823E-02	3.102E-03
0.698	0.6867	1.6070E-01	2.172E-02	1.101E-02	3.572E-03	2.455E-02	1.647E-03
0.762	0.7455	1.8335E-01	1.521E-02	7.850E-03	1.749E-03	1.729E-02	4.979E-04
0.825	0.7859	1.9570E-01	1.121E-02	5.335E-03	2.617E-04	1.241E-02	1.532E-04
0.889	0.8080	1.9946E-01	9.698E-03	4.304E-03	-1.150E-05	1.050E-02	1.149E-04
1.016	0.8697	2.0452E-01	3.889E-03	1.817E-03	-7.568E-04	4.280E-03	7.659E-05
1.143	0.8949	1.9625E-01	1.250E-03	9.914E-04	-6.762E-04	1.681E-03	0.000E+00
1.270	0.9058	1.8432E-01	6.392E-04	6.327E-04	-3.778E-04	9.540E-04	0.000E+00
1.397	0.9136	1.6772E-01	3.618E-04	5.112E-04	-2.436E-04	6.547E-04	0.000E+00
1.524	0.9243	1.4913E-01	4.658E-04	1.064E-03	-5.175E-04	1.147E-03	0.000E+00
1.778	0.9644	7.6790E-02	1.116E-03	3.780E-03	-1.868E-03	3.672E-03	0.000E+00
2.032	0.9993	6.3600E-03	2.301E-04	5.660E-04	-2.404E-04	5.971E-04	0.000E+00
2.286	1.0012	-6.1901E-04	1.232E-04	1.400E-04	-1.259E-05	1.974E-04	0.000E+00
2.540	1.0009	-6.9946E-04	1.138E-04	1.147E-04	7.301E-06	1.714E-04	0.000E+00
2.794	1.0000	1.2091E-05	1.045E-04	1.072E-04	3.455E-06	1.588E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 1.229$ cm; Obtained 9/11/85-17:49:18
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.2582	6.9389E-02	3.625E-02	1.964E-02	4.404E-03	4.191E-02	9.659E-02
0.102	0.2833	6.5377E-02	3.862E-02	1.885E-02	3.395E-03	4.311E-02	8.387E-02
0.152	0.3364	6.2926E-02	4.082E-02	1.855E-02	3.008E-03	4.453E-02	5.810E-02
0.203	0.3971	8.3634E-02	3.911E-02	1.895E-02	2.743E-03	4.354E-02	3.370E-02
0.254	0.4680	1.1898E-01	3.439E-02	1.864E-02	1.175E-03	3.977E-02	1.425E-02
0.317	0.5150	1.3146E-01	3.122E-02	1.711E-02	1.195E-03	3.624E-02	8.770E-03
0.381	0.5624	1.4517E-01	2.695E-02	1.490E-02	1.657E-03	3.139E-02	4.366E-03
0.444	0.5867	1.4288E-01	2.850E-02	1.434E-02	5.086E-03	3.213E-02	4.213E-03
0.508	0.6282	1.6455E-01	2.464E-02	1.267E-02	4.596E-03	2.798E-02	2.489E-03
0.572	0.6735	1.8786E-01	2.089E-02	1.024E-02	3.656E-03	2.334E-02	1.379E-03
0.635	0.7127	2.0417E-01	1.664E-02	8.399E-03	2.711E-03	1.878E-02	6.893E-04
0.698	0.7519	2.1679E-01	1.294E-02	6.646E-03	1.913E-03	1.469E-02	3.064E-04
0.762	0.7926	2.3369E-01	8.206E-03	4.264E-03	3.752E-04	9.352E-03	1.915E-04
0.825	0.8173	2.3607E-01	5.986E-03	3.040E-03	-3.032E-04	6.770E-03	0.000E+00
0.889	0.8415	2.3441E-01	4.021E-03	2.181E-03	-9.870E-04	4.652E-03	0.000E+00
1.016	0.8742	2.1648E-01	1.857E-03	1.421E-03	-1.098E-03	2.459E-03	0.000E+00
1.143	0.8919	1.9826E-01	1.016E-03	1.034E-03	-7.488E-04	1.538E-03	0.000E+00
1.270	0.9045	1.8051E-01	5.997E-04	7.692E-04	-4.857E-04	1.027E-03	0.000E+00
1.524	0.9318	1.2963E-01	6.927E-04	2.025E-03	-1.007E-03	2.038E-03	0.000E+00
1.778	0.9762	4.4048E-02	8.832E-04	2.995E-03	-1.478E-03	2.908E-03	0.000E+00
2.032	0.9953	4.1431E-03	2.200E-04	6.275E-04	-2.570E-04	6.356E-04	0.000E+00
2.286	0.9994	-1.7397E-03	8.990E-05	9.145E-05	-2.372E-07	1.360E-04	0.000E+00
2.540	1.0011	-9.1187E-04	1.067E-04	1.101E-04	-2.522E-06	1.626E-04	0.000E+00
2.794	1.0000	1.8724E-03	9.910E-05	1.001E-04	3.204E-06	1.494E-04	0.000E+00

ORIGINAL PAGE IS
OF POOR QUALITY

TABLE 9.- CONTINUED

$\alpha = 5^\circ$, $x = 1.638$ cm; Obtained 9/11/85-18:33:55

$P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.076	0.3301	1.2272E-01	3.013E-02	1.854E-02	3.087E-03	3.650E-02	2.842E-02
0.102	0.3505	1.1058E-01	3.240E-02	1.772E-02	2.461E-03	3.760E-02	2.616E-02
0.152	0.4002	1.0932E-01	3.472E-02	1.801E-02	2.685E-03	3.955E-02	1.961E-02
0.203	0.4523	1.1899E-01	3.415E-02	1.727E-02	3.069E-03	3.856E-02	1.199E-02
0.254	0.4897	1.2827E-01	3.375E-02	1.650E-02	3.926E-03	3.768E-02	9.192E-03
0.317	0.5465	1.4929E-01	3.015E-02	1.521E-02	4.718E-03	3.402E-02	5.783E-03
0.381	0.5892	1.7165E-01	2.765E-02	1.392E-02	5.110E-03	3.118E-02	4.404E-03
0.444	0.6378	1.9744E-01	2.157E-02	1.147E-02	4.030E-03	2.478E-02	1.455E-03
0.508	0.6772	2.2060E-01	1.739E-02	1.009E-02	3.776E-03	2.061E-02	6.511E-04
0.572	0.7111	2.3635E-01	1.386E-02	7.804E-03	2.783E-03	1.625E-02	2.681E-04
0.635	0.7467	2.5662E-01	9.750E-03	5.724E-03	1.703E-03	1.161E-02	7.659E-05
0.698	0.7746	2.6820E-01	6.957E-03	4.079E-03	6.711E-04	8.277E-03	1.915E-04
0.762	0.7951	2.7234E-01	5.278E-03	2.868E-03	-1.397E-04	6.110E-03	3.833E-05
0.825	0.8140	2.6711E-01	3.868E-03	2.084E-03	-7.412E-04	4.464E-03	0.000E+00
0.889	0.8309	2.6231E-01	2.668E-03	1.689E-03	-1.057E-03	3.268E-03	0.000E+00
1.016	0.8626	2.3245E-01	1.863E-03	1.620E-03	-1.316E-03	2.612E-03	0.000E+00
1.143	0.8852	2.0458E-01	1.318E-03	1.410E-03	-1.113E-03	2.046E-03	0.000E+00
1.270	0.9071	1.7525E-01	7.875E-04	1.107E-03	-7.363E-04	1.421E-03	0.000E+00
1.397	0.9220	1.4858E-01	6.805E-04	1.546E-03	-8.443E-04	1.670E-03	0.000E+00
1.524	0.9383	1.1596E-01	8.589E-04	2.565E-03	-1.311E-03	2.568E-03	0.000E+00
1.778	0.9866	2.4598E-02	6.054E-04	2.002E-03	-9.630E-04	1.955E-03	0.000E+00
2.032	0.9989	-1.2018E-03	1.302E-04	1.670E-04	-5.423E-05	2.229E-04	0.000E+00
2.286	1.0002	-4.1153E-04	9.724E-05	9.872E-05	-1.655E-07	1.470E-04	0.000E+00
2.540	1.0000	1.3644E-03	9.852E-05	1.021E-04	7.637E-06	1.505E-04	0.000E+00

TABLE 9.- CONTINUED

$\alpha = 5^\circ$, $x = 2.048$ cm; Obtained 9/11/85-20:40:32

$P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.076	0.3839	1.5244E-01	2.613E-02	1.715E-02	2.526E-03	3.246E-02	7.276E-03
0.102	0.4237	1.5592E-01	2.657E-02	1.711E-02	2.091E-03	3.276E-02	4.060E-03
0.152	0.4702	1.5632E-01	2.802E-02	1.640E-02	2.702E-03	3.332E-02	3.638E-03
0.203	0.5065	1.6420E-01	2.758E-02	1.714E-02	3.228E-03	3.353E-02	2.681E-03
0.254	0.5508	1.8063E-01	2.527E-02	1.569E-02	3.773E-03	3.072E-02	1.225E-03
0.317	0.5836	1.9487E-01	2.417E-02	1.457E-02	4.395E-03	2.905E-02	1.685E-03
0.381	0.6243	2.1765E-01	2.027E-02	1.312E-02	4.838E-03	2.504E-02	1.034E-03
0.444	0.6614	2.3881E-01	1.643E-02	1.079E-02	4.335E-03	2.042E-02	4.596E-04
0.508	0.6958	2.6604E-01	1.206E-02	8.443E-03	3.008E-03	1.538E-02	1.532E-04
0.572	0.7210	2.7906E-01	9.498E-03	6.712E-03	2.420E-03	1.216E-02	7.659E-05
0.635	0.7465	2.9766E-01	6.440E-03	4.432E-03	1.012E-03	8.154E-03	3.833E-05
0.698	0.7652	3.0205E-01	4.826E-03	3.212E-03	3.487E-04	6.081E-03	7.665E-05
0.762	0.7799	3.0282E-01	3.692E-03	2.187E-03	-2.327E-04	4.409E-03	3.833E-05
0.825	0.7947	2.9747E-01	2.858E-03	1.641E-03	-6.838E-04	3.374E-03	0.000E+00
0.889	0.8085	2.8505E-01	2.404E-03	1.528E-03	-1.025E-03	2.949E-03	0.000E+00
1.016	0.8438	2.5139E-01	2.207E-03	1.788E-03	-1.502E-03	2.996E-03	0.000E+00
1.143	0.8801	2.0661E-01	1.801E-03	1.956E-03	-1.607E-03	2.818E-03	0.000E+00
1.270	0.9106	1.6341E-01	1.217E-03	1.952E-03	-1.320E-03	2.377E-03	0.000E+00
1.397	0.9301	1.3205E-01	9.744E-04	2.341E-03	-1.314E-03	2.487E-03	0.000E+00
1.524	0.9561	8.5914E-02	1.196E-03	3.857E-03	-1.375E-03	3.790E-03	0.000E+00
1.778	0.9972	7.5296E-03	2.624E-04	7.453E-04	-3.273E-04	7.557E-04	0.000E+00
2.032	1.0013	1.0791E-03	1.053E-04	1.458E-04	-2.130E-05	1.883E-04	0.000E+00
2.286	1.0017	-8.4663E-04	9.889E-05	1.000E-04	8.742E-07	1.492E-04	0.000E+00
2.540	1.0000	6.3030E-04	9.729E-05	1.002E-04	-1.359E-07	1.481E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 2.457$ cm; Obtained 9/11/85-22:26:57
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.4159	2.0127E-01	2.086E-02	1.646E-02	2.971E-03	2.799E-02	8.425E-04
0.102	0.4362	1.9311E-01	2.259E-02	1.644E-02	2.493E-03	2.927E-02	1.264E-03
0.152	0.4913	1.9769E-01	2.349E-02	1.543E-02	2.455E-03	2.919E-02	9.192E-04
0.203	0.5300	2.0329E-01	2.297E-02	1.524E-02	2.386E-03	2.866E-02	7.660E-04
0.254	0.5656	2.1291E-01	2.087E-02	1.462E-02	3.499E-03	2.662E-02	6.511E-04
0.317	0.6045	2.3422E-01	1.805E-02	1.270E-02	3.839E-03	2.306E-02	2.298E-04
0.381	0.6378	2.5526E-01	1.532E-02	1.170E-02	3.817E-03	2.027E-02	2.681E-04
0.508	0.6914	3.0044E-01	8.292E-03	6.832E-03	2.247E-03	1.134E-02	3.833E-05
0.572	0.7084	3.1035E-01	6.942E-03	5.696E-03	1.509E-03	9.479E-03	1.149E-04
0.635	0.7244	3.2257E-01	4.966E-03	3.746E-03	8.324E-04	6.534E-03	7.659E-05
0.698	0.7401	3.2743E-01	3.804E-03	2.616E-03	1.121E-04	4.815E-03	0.000E+00
0.762	0.7503	3.2927E-01	2.986E-03	1.873E-03	-1.806E-04	3.644E-03	3.833E-05
0.825	0.7596	3.2605E-01	2.458E-03	1.345E-03	-4.826E-04	2.852E-03	0.000E+00
0.889	0.7706	3.1735E-01	2.272E-03	1.211E-03	-7.233E-04	2.612E-03	0.000E+00
1.016	0.8045	2.8777E-01	2.342E-03	1.539E-03	-1.287E-03	2.911E-03	0.000E+00
1.143	0.8484	2.4094E-01	2.715E-03	2.566E-03	-2.230E-03	3.960E-03	0.000E+00
1.270	0.9010	1.7409E-01	2.439E-03	3.560E-03	-2.636E-03	4.499E-03	0.000E+00
1.397	0.9408	1.1308E-01	1.859E-03	4.321E-03	-2.573E-03	4.635E-03	0.000E+00
1.524	0.9718	5.5903E-02	1.155E-03	3.396E-03	-1.811E-03	3.413E-03	0.000E+00
1.778	1.0005	3.4969E-03	1.728E-04	4.090E-04	-1.612E-04	4.364E-04	0.000E+00
2.032	1.0005	-6.3220E-04	8.827E-05	9.228E-05	-3.061E-06	1.354E-04	0.000E+00
2.286	1.0018	-2.9153E-04	9.404E-05	9.962E-05	-2.646E-06	1.452E-04	0.000E+00
2.540	1.0001	-1.4537E-03	9.322E-05	9.664E-05	-1.268E-06	1.424E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 3.277$ cm; Obtained 9/11/85-23:24:40
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.4835	2.7016E-01	1.527E-02	1.299E-02	2.803E-03	2.120E-02	0.000E+00
0.102	0.5110	2.6717E-01	1.538E-02	1.244E-02	2.407E-03	2.087E-02	0.000E+00
0.152	0.5427	2.6068E-01	1.603E-02	1.161E-02	2.245E-03	2.073E-02	3.833E-05
0.203	0.5792	2.7191E-01	1.361E-02	1.033E-02	2.272E-03	1.796E-02	0.000E+00
0.254	0.6016	2.8536E-01	1.256E-02	9.845E-03	2.254E-03	1.680E-02	3.833E-05
0.317	0.6266	3.0118E-01	9.947E-03	7.974E-03	1.798E-03	1.344E-02	0.000E+00
0.381	0.6448	3.1579E-01	7.967E-03	6.918E-03	1.721E-03	1.116E-02	0.000E+00
0.444	0.6588	3.3431E-01	6.236E-03	5.456E-03	1.276E-03	8.769E-03	0.000E+00
0.508	0.6730	3.4118E-01	5.211E-03	4.544E-03	1.011E-03	7.317E-03	0.000E+00
0.572	0.6795	3.5395E-01	3.867E-03	3.316E-03	5.100E-04	5.387E-03	0.000E+00
0.635	0.6853	3.5978E-01	3.216E-03	2.571E-03	2.795E-04	4.340E-03	0.000E+00
0.698	0.6921	3.6552E-01	2.577E-03	1.892E-03	5.985E-06	3.352E-03	0.000E+00
0.762	0.6991	3.6623E-01	2.175E-03	1.459E-03	-1.170E-04	2.726E-03	0.000E+00
0.825	0.7036	3.6610E-01	1.898E-03	1.200E-03	-2.047E-04	2.323E-03	0.000E+00
0.889	0.7082	3.6371E-01	1.657E-03	9.510E-04	-2.405E-04	1.956E-03	0.000E+00
1.016	0.7249	3.5071E-01	1.620E-03	8.070E-04	-4.040E-04	1.821E-03	0.000E+00
1.143	0.7497	3.2255E-01	2.161E-03	1.141E-03	-8.650E-04	2.476E-03	0.000E+00
1.270	0.7936	2.5892E-01	4.214E-03	3.499E-03	-2.683E-03	5.785E-03	0.000E+00
1.524	0.9751	3.9738E-02	3.313E-03	5.143E-03	-3.836E-03	6.341E-03	0.000E+00
1.778	1.0009	-2.8803E-03	1.276E-04	1.903E-04	-7.607E-05	2.385E-04	0.000E+00
2.032	0.9998	-4.6918E-03	8.738E-05	9.439E-05	-1.998E-06	1.363E-04	0.000E+00
2.286	1.0001	-4.9756E-03	8.486E-05	9.014E-05	-6.463E-07	1.312E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 4.096$ cm; Obtained 9/12/85-16:40:23
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.076	0.5406	3.2628E-01	1.101E-02	8.688E-03	1.914E-03	1.477E-02	0.000E+00
0.102	0.5534	3.2747E-01	1.094E-02	8.243E-03	1.369E-03	1.439E-02	0.000E+00
0.152	0.5756	3.2403E-01	1.091E-02	7.643E-03	1.023E-03	1.392E-02	0.000E+00
0.203	0.5992	3.3005E-01	1.015E-02	6.983E-03	5.256E-04	1.285E-02	0.000E+00
0.254	0.6160	3.3358E-01	9.121E-03	6.469E-03	4.753E-04	1.169E-02	0.000E+00
0.317	0.6273	3.4344E-01	8.426E-03	5.590E-03	1.617E-04	1.051E-02	0.000E+00
0.381	0.6389	3.4807E-01	7.201E-03	4.938E-03	1.472E-04	9.104E-03	0.000E+00
0.444	0.6503	3.5872E-01	5.447E-03	3.969E-03	-1.493E-05	7.062E-03	0.000E+00
0.508	0.6594	3.6568E-01	4.504E-03	3.447E-03	2.376E-05	5.963E-03	0.000E+00
0.572	0.6669	3.7383E-01	3.417E-03	2.623E-03	-3.436E-04	4.530E-03	0.000E+00
0.635	0.6690	3.7842E-01	3.103E-03	2.315E-03	-2.614E-04	4.064E-03	0.000E+00
0.698	0.6724	3.8169E-01	2.609E-03	1.995E-03	-3.677E-04	3.453E-03	0.000E+00
0.762	0.6755	3.8457E-01	2.073E-03	1.532E-03	-4.568E-04	2.704E-03	0.000E+00
0.825	0.6804	3.8341E-01	1.877E-03	1.354E-03	-4.231E-04	2.423E-03	0.000E+00
0.889	0.6826	3.8272E-01	1.538E-03	1.147E-03	-4.033E-04	2.014E-03	0.000E+00
1.016	0.6855	3.7823E-01	1.332E-03	8.854E-04	-3.357E-04	1.663E-03	0.000E+00
1.143	0.6842	3.6699E-01	1.790E-03	8.361E-04	-1.441E-04	1.969E-03	0.000E+00
1.270	0.6689	3.4647E-01	2.327E-03	8.040E-04	1.929E-05	2.349E-03	0.000E+00
1.397	0.6822	3.1673E-01	2.969E-03	1.226E-03	-6.982E-04	3.146E-03	0.000E+00
1.524	0.7499	2.3755E-01	5.074E-03	4.233E-03	-3.955E-03	6.980E-03	0.000E+00
1.778	0.9921	1.8207E-03	2.637E-03	2.662E-03	-2.540E-03	3.974E-03	0.000E+00
2.032	1.0003	-1.0376E-02	9.599E-05	1.036E-04	-1.316E-05	1.497E-04	0.000E+00
2.286	1.0001	-9.5446E-03	9.694E-05	9.948E-05	-4.185E-06	1.473E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 4.915$ cm; Obtained 9/12/85-17:42:58
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.076	0.5352	3.5907E-01	7.822E-03	6.459E-03	2.922E-03	1.071E-02	0.000E+00
0.102	0.5559	3.6290E-01	7.091E-03	6.018E-03	1.895E-03	9.832E-03	0.000E+00
0.152	0.5733	3.5888E-01	7.004E-03	5.676E-03	1.234E-03	9.510E-03	0.000E+00
0.203	0.5902	3.6042E-01	6.957E-03	5.295E-03	6.885E-04	9.189E-03	0.000E+00
0.254	0.6078	3.6321E-01	6.059E-03	4.593E-03	3.567E-04	7.989E-03	0.000E+00
0.317	0.6204	3.6650E-01	5.530E-03	4.085E-03	1.593E-04	7.211E-03	0.000E+00
0.381	0.6287	3.6820E-01	5.177E-03	3.722E-03	1.235E-04	6.674E-03	0.000E+00
0.444	0.6373	3.7262E-01	4.164E-03	3.063E-03	8.459E-05	5.420E-03	0.000E+00
0.508	0.6434	3.7952E-01	3.438E-03	2.663E-03	-1.494E-05	4.576E-03	0.000E+00
0.572	0.6479	3.8436E-01	2.979E-03	2.225E-03	-1.208E-04	3.903E-03	0.000E+00
0.635	0.6539	3.8593E-01	2.514E-03	1.819E-03	-2.414E-04	3.249E-03	0.000E+00
0.698	0.6576	3.8975E-01	2.377E-03	1.751E-03	-3.836E-04	3.096E-03	0.000E+00
0.762	0.6603	3.8918E-01	2.039E-03	1.602E-03	-3.461E-04	2.731E-03	0.000E+00
0.825	0.6613	3.9109E-01	1.676E-03	1.239E-03	-3.844E-04	2.187E-03	0.000E+00
0.889	0.6621	3.9075E-01	1.531E-03	1.093E-03	-4.579E-04	1.968E-03	0.000E+00
1.016	0.6539	3.8366E-01	1.559E-03	9.437E-04	-1.699E-04	1.877E-03	0.000E+00
1.143	0.6436	3.6953E-01	1.888E-03	9.855E-04	4.295E-05	2.155E-03	0.000E+00
1.270	0.6286	3.5335E-01	1.590E-03	8.323E-04	3.800E-05	1.816E-03	0.000E+00
1.524	0.6252	3.3764E-01	7.621E-04	4.904E-04	-9.803E-05	9.394E-04	0.000E+00
1.778	0.6732	2.8837E-01	2.132E-03	1.714E-03	-1.627E-03	2.884E-03	0.000E+00
2.032	0.9006	8.5851E-02	2.351E-02	2.244E-02	-2.287E-02	3.446E-02	0.000E+00
2.286	0.9976	-9.3064E-03	8.549E-05	8.586E-05	-7.567E-06	1.285E-04	0.000E+00
2.540	1.0001	-8.1651E-03	9.046E-05	9.146E-05	-4.563E-06	1.364E-04	0.000E+00

ORIGINAL PAGE IS
OF POOR QUALITY

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 5.324$ cm; Obtained 9/18/85-21:06:15
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.5507	3.7304E-01	6.116E-03	4.805E-03	2.873E-03	8.191E-03	0.000E+00
0.102	0.5621	3.7228E-01	6.171E-03	4.500E-03	2.316E-03	8.004E-03	0.000E+00
0.152	0.5853	3.7248E-01	5.543E-03	3.984E-03	1.463E-03	7.145E-03	0.000E+00
0.203	0.6000	3.7477E-01	5.340E-03	3.901E-03	9.477E-04	6.931E-03	0.000E+00
0.254	0.6106	3.7743E-01	4.873E-03	3.629E-03	6.244E-04	6.376E-03	0.000E+00
0.317	0.6230	3.7560E-01	4.503E-03	3.232E-03	5.040E-04	5.801E-03	0.000E+00
0.381	0.6312	3.8063E-01	3.805E-03	2.762E-03	3.880E-04	4.926E-03	0.000E+00
0.444	0.6351	3.8367E-01	3.483E-03	2.412E-03	3.413E-04	4.421E-03	0.000E+00
0.508	0.6431	3.8525E-01	2.664E-03	1.960E-03	2.519E-04	3.468E-03	0.000E+00
0.572	0.6473	3.9061E-01	2.427E-03	1.718E-03	5.994E-05	3.109E-03	0.000E+00
0.635	0.6531	3.8957E-01	2.392E-03	1.714E-03	-1.780E-04	3.079E-03	0.000E+00
0.762	0.6586	3.9542E-01	1.610E-03	1.178E-03	-3.048E-04	2.091E-03	0.000E+00
0.889	0.6605	3.9285E-01	1.384E-03	9.945E-04	-3.824E-04	1.784E-03	0.000E+00
1.016	0.6497	3.8452E-01	1.453E-03	8.237E-04	2.255E-05	1.708E-03	0.000E+00
1.143	0.6301	3.6987E-01	1.586E-03	7.514E-04	2.083E-04	1.753E-03	0.000E+00
1.270	0.6232	3.6023E-01	1.199E-03	5.630E-04	1.776E-04	1.322E-03	0.000E+00
1.397	0.6198	3.5306E-01	7.639E-04	4.107E-04	1.020E-04	8.809E-04	0.000E+00
1.524	0.6229	3.4544E-01	5.394E-04	3.058E-04	7.978E-05	6.339E-04	0.000E+00
1.778	0.6414	3.2024E-01	6.360E-04	4.714E-04	-2.908E-04	8.306E-04	0.000E+00
2.032	0.7697	2.0029E-01	3.738E-03	3.317E-03	-3.416E-03	5.291E-03	0.000E+00
2.286	0.9993	-7.5684E-03	6.174E-04	6.075E-04	-5.500E-04	9.187E-04	0.000E+00
2.540	1.0001	-8.6317E-03	7.108E-05	7.127E-05	-8.571E-06	1.068E-04	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 5.734$ cm; Obtained 9/12/85-18:41:19
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.5783	3.7419E-01	3.551E-03	3.184E-03	2.026E-03	5.051E-03	0.000E+00
0.102	0.5879	3.7819E-01	3.544E-03	3.200E-03	1.655E-03	5.058E-03	0.000E+00
0.152	0.6016	3.8160E-01	3.314E-03	3.192E-03	1.035E-03	4.880E-03	0.000E+00
0.203	0.6132	3.8156E-01	2.939E-03	2.872E-03	6.762E-04	4.358E-03	0.000E+00
0.254	0.6216	3.7934E-01	2.979E-03	2.853E-03	4.870E-04	4.374E-03	0.000E+00
0.317	0.6285	3.8265E-01	3.064E-03	2.772E-03	1.711E-04	4.377E-03	0.000E+00
0.381	0.6347	3.8480E-01	2.845E-03	2.460E-03	8.323E-07	3.979E-03	0.000E+00
0.444	0.6420	3.8752E-01	2.441E-03	2.181E-03	-5.969E-05	3.467E-03	0.000E+00
0.508	0.6456	3.8834E-01	2.275E-03	1.994E-03	-2.041E-05	3.202E-03	0.000E+00
0.572	0.6494	3.9026E-01	1.983E-03	1.649E-03	-1.661E-04	2.724E-03	0.000E+00
0.635	0.6539	3.9071E-01	1.719E-03	1.469E-03	-2.334E-04	2.391E-03	0.000E+00
0.698	0.6560	3.9427E-01	1.582E-03	1.336E-03	-3.073E-04	2.189E-03	0.000E+00
0.762	0.6577	3.9618E-01	1.463E-03	1.123E-03	-3.443E-04	1.940E-03	0.000E+00
0.889	0.6568	3.9568E-01	1.184E-03	9.441E-04	-3.276E-04	1.596E-03	0.000E+00
1.016	0.6427	3.8512E-01	1.484E-03	9.625E-04	-2.016E-05	1.835E-03	0.000E+00
1.143	0.6222	3.6886E-01	1.399E-03	7.507E-04	1.401E-04	1.612E-03	0.000E+00
1.270	0.6133	3.5926E-01	9.927E-04	5.304E-04	7.174E-05	1.142E-03	0.000E+00
1.524	0.6157	3.4861E-01	5.537E-04	3.331E-04	1.132E-05	6.651E-04	0.000E+00
1.778	0.6187	3.3687E-01	2.933E-04	2.087E-04	-2.724E-05	3.765E-04	0.000E+00
2.032	0.6497	3.0727E-01	8.659E-04	7.411E-04	-6.560E-04	1.205E-03	0.000E+00
2.286	0.8126	1.6576E-01	1.413E-02	1.364E-02	-1.380E-02	2.083E-02	0.000E+00
2.540	0.9987	-7.6076E-03	6.886E-05	6.792E-05	-7.242E-06	1.026E-04	0.000E+00
2.794	1.0001	-3.7392E-03	6.869E-05	6.868E-05	-9.068E-07	1.030E-04	0.000E+00

TABLE 9.- CONTINUED

 $\alpha = 5^\circ$, $x = 6.234$ cm; Obtained 9/18/85-22:24:17 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.7603	2.2579E-02	3.334E-03	1.135E-03	6.139E-04	3.351E-03	0.000E+00
0.102	0.8181	7.6965E-02	3.109E-03	1.372E-03	7.309E-04	3.361E-03	0.000E+00
0.152	0.8363	1.1981E-01	3.187E-03	1.663E-03	1.057E-03	3.638E-03	0.000E+00
0.203	0.8396	1.5696E-01	3.258E-03	2.068E-03	1.353E-03	3.995E-03	0.000E+00
0.254	0.8347	1.8929E-01	3.101E-03	2.286E-03	1.416E-03	4.040E-03	0.000E+00
0.317	0.8202	2.2331E-01	2.775E-03	2.378E-03	1.367E-03	3.865E-03	0.000E+00
0.381	0.8041	2.5202E-01	2.624E-03	2.494E-03	1.273E-03	3.838E-03	0.000E+00
0.444	0.7890	2.7847E-01	2.357E-03	2.330E-03	1.008E-03	3.516E-03	0.000E+00
0.508	0.7753	3.0051E-01	2.028E-03	2.127E-03	8.170E-04	3.116E-03	0.000E+00
0.572	0.7630	3.1639E-01	1.844E-03	1.957E-03	6.039E-04	2.851E-03	0.000E+00
0.635	0.7539	3.3019E-01	1.660E-03	1.796E-03	4.713E-04	2.592E-03	0.000E+00
0.762	0.7311	3.5696E-01	1.392E-03	1.518E-03	1.623E-04	2.183E-03	0.000E+00
0.889	0.7169	3.6832E-01	1.207E-03	1.315E-03	-5.657E-05	1.892E-03	0.000E+00
1.016	0.7042	3.7957E-01	9.411E-04	1.036E-03	-1.642E-04	1.482E-03	0.000E+00
1.143	0.6934	3.8381E-01	7.737E-04	8.256E-04	-2.124E-04	1.199E-03	0.000E+00
1.270	0.6679	3.7535E-01	1.258E-03	7.248E-04	5.513E-05	1.487E-03	0.000E+00
1.524	0.6322	3.5699E-01	1.057E-03	3.845E-04	5.781E-05	1.081E-03	0.000E+00
1.778	0.6205	3.5015E-01	5.278E-04	2.024E-04	2.744E-06	5.476E-04	0.000E+00
2.032	0.6197	3.4267E-01	3.351E-04	1.636E-04	-2.766E-05	3.741E-04	0.000E+00
2.286	0.6256	3.3470E-01	2.531E-04	1.515E-04	-4.801E-05	3.034E-04	0.000E+00
2.540	0.6539	3.1041E-01	6.701E-04	5.960E-04	-5.306E-04	9.496E-04	0.000E+00
2.794	0.7866	1.9691E-01	1.915E-02	1.916E-02	-1.908E-02	2.873E-02	0.000E+00
3.048	0.9989	-2.0711E-03	7.481E-05	7.726E-05	-2.373E-06	1.141E-04	0.000E+00
3.302	1.0001	-2.1411E-03	7.467E-05	7.464E-05	-1.913E-06	1.120E-04	0.000E+00

TABLE 9.- CONTINUED

 $\alpha = 5^\circ$, $x = 6.984$ cm; Obtained 9/16/85-18:28:25 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.8057	-1.9974E-02	4.536E-03	1.019E-03	2.274E-04	4.166E-03	0.000E+00
0.102	0.8669	2.8708E-03	4.491E-03	1.212E-03	5.332E-04	4.277E-03	0.000E+00
0.152	0.9023	2.0853E-02	4.203E-03	1.343E-03	5.639E-04	4.159E-03	0.000E+00
0.203	0.9196	3.2532E-02	4.057E-03	1.502E-03	6.595E-04	4.169E-03	0.000E+00
0.254	0.9248	4.2073E-02	3.944E-03	1.664E-03	6.701E-04	4.206E-03	0.000E+00
0.381	0.9270	6.2928E-02	4.038E-03	1.924E-03	7.111E-04	4.472E-03	0.000E+00
0.508	0.9244	9.7913E-02	3.584E-03	1.926E-03	7.096E-04	4.132E-03	0.000E+00
0.635	0.9141	1.3533E-01	3.060E-03	1.790E-03	8.257E-04	3.637E-03	0.000E+00
0.762	0.9020	1.7490E-01	2.543E-03	1.583E-03	7.997E-04	3.095E-03	0.000E+00
0.889	0.8858	2.0652E-01	2.047E-03	1.394E-03	6.559E-04	2.580E-03	0.000E+00
1.016	0.8719	2.3666E-01	1.493E-03	1.166E-03	4.319E-04	1.994E-03	0.000E+00
1.143	0.8541	2.5794E-01	1.092E-03	1.031E-03	3.080E-04	1.592E-03	0.000E+00
1.270	0.8381	2.7992E-01	7.728E-04	8.621E-04	1.341E-04	1.226E-03	0.000E+00
1.397	0.8204	2.9697E-01	5.777E-04	7.761E-04	5.852E-05	1.015E-03	0.000E+00
1.524	0.7998	3.0843E-01	5.077E-04	6.786E-04	-7.034E-06	8.898E-04	0.000E+00
1.778	0.7459	3.1407E-01	7.708E-04	5.051E-04	-3.057E-05	9.570E-04	0.000E+00
2.032	0.7074	3.1792E-01	4.421E-04	2.325E-04	-1.063E-04	5.059E-04	0.000E+00
2.540	0.6735	3.2718E-01	2.502E-04	1.808E-04	-8.909E-05	3.232E-04	0.000E+00
3.048	0.6589	3.2522E-01	2.387E-04	1.878E-04	-1.172E-04	3.198E-04	0.000E+00
3.556	0.7777	2.1003E-01	4.712E-03	4.319E-03	-4.437E-03	6.773E-03	0.000E+00
3.810	0.9987	-1.5205E-03	8.228E-04	7.899E-04	-7.444E-04	1.210E-03	0.000E+00
4.064	1.0000	-1.1396E-04	7.137E-05	5.932E-05	-4.740E-06	9.802E-05	0.000E+00

TABLE 9.- CONTINUED
 $\alpha = 5^\circ$, $x = 7.984$ cm; Obtained 9/16/85-20:59:24
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	U _V	U _{2V2}	GMINUS
0.051	0.8423	-1.1709E-02	4.569E-03	1.003E-03	-2.304E-05	4.179E-03	0.000E+00
0.102	0.8804	-3.5964E-03	4.012E-03	1.145E-03	2.332E-04	3.868E-03	0.000E+00
0.152	0.9075	7.0260E-03	3.668E-03	1.210E-03	3.900E-04	3.658E-03	0.000E+00
0.203	0.9259	1.5527E-02	3.494E-03	1.275E-03	5.017E-04	3.577E-03	0.000E+00
0.254	0.9391	2.2723E-02	3.243E-03	1.293E-03	4.953E-04	3.402E-03	0.000E+00
0.317	0.9452	2.8081E-02	3.197E-03	1.367E-03	5.665E-04	3.423E-03	0.000E+00
0.381	0.9519	3.0464E-02	3.171E-03	1.473E-03	5.818E-04	3.483E-03	0.000E+00
0.508	0.9531	3.8079E-02	3.008E-03	1.430E-03	4.251E-04	3.329E-03	0.000E+00
0.635	0.9542	4.7054E-02	3.062E-03	1.441E-03	3.857E-04	3.377E-03	0.000E+00
0.762	0.9548	6.0190E-02	2.997E-03	1.465E-03	3.631E-04	3.347E-03	0.000E+00
0.889	0.9526	7.7968E-02	2.728E-03	1.329E-03	3.698E-04	3.043E-03	0.000E+00
1.016	0.9552	9.8908E-02	2.033E-03	1.005E-03	3.777E-04	2.279E-03	0.000E+00
1.143	0.9471	1.2176E-01	1.577E-03	8.385E-04	3.335E-04	1.812E-03	0.000E+00
1.270	0.9381	1.4434E-01	1.299E-03	7.646E-04	2.933E-04	1.548E-03	0.000E+00
1.397	0.9259	1.6565E-01	9.481E-04	6.453E-04	2.079E-04	1.195E-03	0.000E+00
1.524	0.9153	1.8460E-01	7.001E-04	5.515E-04	1.389E-04	9.387E-04	0.000E+00
1.778	0.8872	2.1705E-01	4.450E-04	4.975E-04	8.167E-05	7.069E-04	0.000E+00
2.032	0.8402	2.3701E-01	5.095E-04	4.166E-04	5.868E-05	6.945E-04	0.000E+00
2.540	0.7809	2.6447E-01	3.086E-04	2.589E-04	-1.303E-04	4.256E-04	0.000E+00
3.048	0.7440	2.8450E-01	1.253E-04	1.107E-04	-2.118E-05	1.770E-04	0.000E+00
3.556	0.7211	2.9598E-01	1.054E-04	1.037E-04	-1.993E-05	1.569E-04	0.000E+00
4.064	0.7128	3.0910E-01	1.280E-04	1.282E-04	-3.767E-05	1.921E-04	0.000E+00
4.318	0.7307	2.9306E-01	6.054E-04	6.040E-04	-5.343E-04	9.071E-04	0.000E+00
4.572	0.8787	1.3540E-01	3.770E-03	4.331E-03	-3.976E-03	6.076E-03	0.000E+00
4.826	1.0015	4.2454E-03	7.175E-05	5.830E-05	2.000E-06	9.754E-05	0.000E+00
5.080	1.0000	5.4509E-03	7.052E-05	5.845E-05	-2.552E-06	9.673E-05	0.000E+00

TABLE 9.- CONCLUDED
 $\alpha = 5^\circ$, $x = 8.984$ cm; Obtained 9/16/85-22:35:56
 $P_T = 1.7$ atm; $T_T = 267.0$ K; $u_\infty = 571.2$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.8455	-4.9624E-04	4.534E-03	1.079E-03	-5.082E-04	4.210E-03	0.000E+00
0.102	0.8844	-1.7267E-04	3.350E-03	1.083E-03	-9.720E-05	3.325E-03	0.000E+00
0.152	0.9079	4.9614E-03	2.967E-03	1.172E-03	9.067E-05	3.104E-03	0.000E+00
0.203	0.9266	9.7094E-03	2.653E-03	1.174E-03	2.308E-04	2.871E-03	0.000E+00
0.254	0.9385	1.6375E-02	2.488E-03	1.205E-03	2.950E-04	2.769E-03	0.000E+00
0.317	0.9474	2.0196E-02	2.465E-03	1.261E-03	4.535E-04	2.795E-03	0.000E+00
0.381	0.9520	2.3325E-02	2.417E-03	1.283E-03	4.720E-04	2.775E-03	0.000E+00
0.508	0.9583	2.6449E-02	2.313E-03	1.283E-03	4.627E-04	2.697E-03	0.000E+00
0.635	0.9654	3.0068E-02	2.207E-03	1.176E-03	4.435E-04	2.537E-03	0.000E+00
0.762	0.9679	3.2635E-02	2.204E-03	1.133E-03	4.101E-04	2.503E-03	0.000E+00
0.889	0.9714	3.5592E-02	2.094E-03	1.074E-03	3.291E-04	2.376E-03	0.000E+00
1.016	0.9794	4.0306E-02	1.747E-03	9.115E-04	2.615E-04	1.994E-03	0.000E+00
1.143	0.9775	4.7231E-02	1.653E-03	8.303E-04	2.098E-04	1.863E-03	0.000E+00
1.270	0.9766	5.9392E-02	1.296E-03	6.647E-04	1.675E-04	1.471E-03	0.000E+00
1.397	0.9731	7.4910E-02	1.150E-03	5.947E-04	1.545E-04	1.308E-03	0.000E+00
1.524	0.9658	9.1033E-02	8.765E-04	5.023E-04	7.916E-05	1.034E-03	0.000E+00
1.778	0.9488	1.2495E-01	5.816E-04	4.532E-04	6.448E-05	7.761E-04	0.000E+00
2.032	0.9240	1.5178E-01	4.618E-04	3.976E-04	8.407E-05	6.446E-04	0.000E+00
2.540	0.8589	1.9115E-01	2.375E-04	1.871E-04	-1.559E-05	3.185E-04	0.000E+00
3.048	0.8212	2.2025E-01	1.188E-04	1.044E-04	-9.777E-06	1.674E-04	0.000E+00
3.556	0.7923	2.4744E-01	8.434E-05	7.775E-05	-7.946E-06	1.216E-04	0.000E+00
4.064	0.7714	2.6888E-01	7.143E-05	6.814E-05	-1.755E-06	1.047E-04	0.000E+00
4.572	0.7595	2.8193E-01	7.220E-05	7.542E-05	-3.706E-06	1.107E-04	0.000E+00
5.080	0.7602	2.8866E-01	1.592E-04	1.864E-04	-1.029E-04	2.592E-04	0.000E+00
5.334	0.8140	2.3010E-01	1.453E-03	1.895E-03	-1.589E-03	2.511E-03	0.000E+00
5.588	0.9987	5.9909E-03	8.806E-05	8.988E-05	-1.961E-05	1.335E-04	0.000E+00
5.842	1.0000	3.6034E-03	7.466E-05	6.173E-05	1.277E-06	1.023E-04	0.000E+00

TABLE 10.- LDV FLOW-FIELD DATA
 $\alpha = 10^\circ$, $x = -6.500$ cm; Obtained 10/1/85-17:53:38
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.6867	5.1261E-03	5.232E-03	2.335E-03	-1.190E-03	5.676E-03	0.000E+00
0.102	0.7421	6.0740E-03	4.160E-03	1.960E-03	-1.075E-03	4.590E-03	0.000E+00
0.152	0.7733	5.5033E-03	3.778E-03	1.772E-03	-1.077E-03	4.163E-03	0.000E+00
0.203	0.7992	5.2813E-03	3.355E-03	1.653E-03	-1.000E-03	3.756E-03	0.000E+00
0.254	0.8218	4.5980E-03	3.113E-03	1.559E-03	-9.547E-04	3.504E-03	0.000E+00
0.317	0.8443	4.1875E-03	2.751E-03	1.460E-03	-8.826E-04	3.159E-03	0.000E+00
0.381	0.8670	5.0013E-03	2.417E-03	1.326E-03	-7.878E-04	2.807E-03	0.000E+00
0.444	0.8889	3.1890E-03	2.170E-03	1.166E-03	-6.895E-04	2.502E-03	0.000E+00
0.508	0.9095	3.1548E-03	1.860E-03	1.036E-03	-5.826E-04	2.172E-03	0.000E+00
0.572	0.9274	2.8103E-03	1.602E-03	8.786E-04	-4.732E-04	1.860E-03	0.000E+00
0.635	0.9409	3.6600E-03	1.378E-03	7.499E-04	-3.931E-04	1.596E-03	0.000E+00
0.698	0.9592	6.1142E-03	1.036E-03	6.379E-04	-2.668E-04	1.255E-03	0.000E+00
0.762	0.9701	6.6672E-03	8.437E-04	5.164E-04	-1.967E-04	1.020E-03	0.000E+00
0.825	0.9810	7.2850E-03	6.430E-04	3.956E-04	-1.406E-04	7.790E-04	0.000E+00
0.889	0.9897	7.9275E-03	4.208E-04	2.904E-04	-8.006E-05	5.335E-04	0.000E+00
1.016	0.9992	8.5083E-03	2.207E-04	1.973E-04	-3.930E-05	3.135E-04	0.000E+00
1.143	1.0024	1.0894E-02	1.588E-04	1.572E-04	-1.346E-05	2.369E-04	0.000E+00
1.270	1.0035	1.0887E-02	1.637E-04	1.650E-04	-9.350E-06	2.465E-04	0.000E+00
1.397	1.0008	1.0484E-02	1.270E-04	1.296E-04	1.187E-06	1.924E-04	0.000E+00
1.524	1.0013	9.8296E-03	1.196E-04	1.225E-04	-2.217E-06	1.816E-04	0.000E+00
1.778	1.0006	9.3038E-03	1.174E-04	1.160E-04	1.944E-06	1.751E-04	0.000E+00
2.032	0.9999	1.1037E-02	1.237E-04	1.252E-04	4.832E-06	1.867E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = -5.500$ cm; Obtained 10/1/85-18:47:21
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.6988	1.0976E-02	5.062E-03	2.540E-03	-1.130E-03	5.701E-03	3.833E-05
0.102	0.7545	7.9745E-03	4.019E-03	2.182E-03	-1.076E-03	4.651E-03	0.000E+00
0.152	0.7872	5.9467E-03	3.653E-03	1.938E-03	-1.043E-03	4.193E-03	0.000E+00
0.203	0.8090	5.9049E-03	3.260E-03	1.786E-03	-1.022E-03	3.784E-03	0.000E+00
0.254	0.8295	5.3585E-03	2.979E-03	1.636E-03	-9.286E-04	3.462E-03	0.000E+00
0.317	0.8509	5.1659E-03	2.662E-03	1.506E-03	-8.621E-04	3.126E-03	0.000E+00
0.381	0.8753	6.7288E-03	2.375E-03	1.357E-03	-7.655E-04	2.798E-03	0.000E+00
0.444	0.8947	6.5380E-03	2.059E-03	1.214E-03	-6.344E-04	2.455E-03	0.000E+00
0.508	0.9138	4.2699E-03	1.867E-03	1.062E-03	-5.563E-04	2.197E-03	0.000E+00
0.572	0.9292	5.1399E-03	1.593E-03	9.174E-04	-4.597E-04	1.883E-03	0.000E+00
0.635	0.9460	5.6224E-03	1.326E-03	7.719E-04	-3.632E-04	1.574E-03	0.000E+00
0.698	0.9571	5.1902E-03	1.126E-03	7.078E-04	-2.413E-04	1.375E-03	0.000E+00
0.762	0.9707	6.2106E-03	8.709E-04	5.451E-04	-1.844E-04	1.062E-03	0.000E+00
0.825	0.9805	6.7382E-03	6.446E-04	4.162E-04	-1.375E-04	7.956E-04	0.000E+00
0.889	0.9899	6.9418E-03	4.422E-04	3.155E-04	-7.190E-05	5.683E-04	0.000E+00
1.016	0.9990	8.2603E-03	2.553E-04	2.179E-04	-2.089E-05	3.549E-04	0.000E+00
1.143	1.0021	9.1951E-03	1.759E-04	1.742E-04	-4.463E-06	2.626E-04	0.000E+00
1.270	1.0029	8.3466E-03	1.644E-04	1.670E-04	-9.002E-07	2.486E-04	0.000E+00
1.397	1.0025	8.5186E-03	1.455E-04	1.440E-04	2.344E-05	2.171E-04	0.000E+00
1.524	1.0025	7.4747E-03	1.485E-04	1.473E-04	2.646E-05	2.219E-04	0.000E+00
1.778	1.0029	5.8815E-03	1.490E-04	1.527E-04	2.008E-05	2.263E-04	0.000E+00
2.032	1.0000	6.4317E-03	1.569E-04	1.650E-04	4.064E-05	2.415E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = -4.500$ cm; Obtained 10/1/85-21:18:59 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.6783	1.6354E-02	1.541E-02	3.561E-03	-1.674E-03	1.423E-02	2.259E-03
0.102	0.7378	1.7058E-02	1.014E-02	2.930E-03	-1.956E-03	9.800E-03	5.745E-04
0.152	0.7734	1.6377E-02	7.325E-03	2.622E-03	-1.966E-03	7.461E-03	7.659E-05
0.203	0.8037	1.4286E-02	5.386E-03	2.292E-03	-1.798E-03	5.759E-03	3.833E-05
0.254	0.8286	1.1434E-02	4.400E-03	2.145E-03	-1.632E-03	4.908E-03	0.000E+00
0.317	0.8538	9.8650E-03	3.795E-03	1.981E-03	-1.485E-03	4.332E-03	0.000E+00
0.381	0.8773	8.5000E-03	2.822E-03	1.692E-03	-1.111E-03	3.386E-03	0.000E+00
0.444	0.8994	6.8690E-03	2.283E-03	1.433E-03	-7.983E-04	2.787E-03	0.000E+00
0.508	0.9146	4.2111E-03	1.913E-03	1.158E-03	-6.643E-04	2.304E-03	0.000E+00
0.572	0.9335	3.6193E-03	1.671E-03	9.673E-04	-5.374E-04	1.978E-03	0.000E+00
0.635	0.9489	3.8295E-03	1.274E-03	7.842E-04	-3.538E-04	1.543E-03	0.000E+00
0.698	0.9652	4.3528E-03	9.733E-04	6.218E-04	-2.044E-04	1.196E-03	0.000E+00
0.762	0.9738	4.2056E-03	8.657E-04	5.473E-04	-1.901E-04	1.060E-03	0.000E+00
0.825	0.9829	5.4869E-03	6.463E-04	4.324E-04	-1.289E-04	8.090E-04	0.000E+00
0.889	0.9894	5.9883E-03	4.726E-04	3.528E-04	-8.015E-05	6.191E-04	0.000E+00
1.016	1.0019	8.1437E-03	2.671E-04	2.331E-04	-2.167E-05	3.752E-04	0.000E+00
1.143	1.0036	7.5632E-03	2.235E-04	2.191E-04	-9.908E-06	3.319E-04	0.000E+00
1.270	1.0049	7.0466E-03	1.820E-04	1.809E-04	3.831E-05	2.722E-04	0.000E+00
1.397	1.0030	5.2312E-03	1.808E-04	1.841E-04	3.950E-05	2.736E-04	0.000E+00
1.524	1.0037	6.7394E-03	1.551E-04	1.535E-04	1.695E-05	2.314E-04	0.000E+00
1.778	1.0012	5.3627E-03	1.477E-04	1.463E-04	-3.493E-07	2.205E-04	0.000E+00
2.032	1.0000	3.4085E-03	1.449E-04	1.450E-04	2.271E-06	2.174E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = -3.500$ cm; Obtained 10/1/85-22:13:22 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.3506	2.7193E-02	5.840E-02	9.478E-03	1.501E-04	5.091E-02	7.843E-02
0.102	0.4749	4.4027E-02	5.212E-02	9.044E-03	-7.963E-04	4.587E-02	2.688E-02
0.152	0.5521	5.8115E-02	4.281E-02	7.913E-03	-2.116E-03	3.805E-02	9.306E-03
0.203	0.6188	6.5228E-02	3.495E-02	6.353E-03	-3.249E-03	3.098E-02	3.485E-03
0.254	0.6724	7.1213E-02	2.770E-02	6.031E-03	-4.333E-03	2.530E-02	1.225E-03
0.317	0.7204	7.4817E-02	2.174E-02	5.540E-03	-5.080E-03	2.046E-02	4.596E-04
0.381	0.7745	7.0303E-02	1.569E-02	5.566E-03	-5.626E-03	1.595E-02	1.532E-04
0.444	0.8029	6.9649E-02	1.285E-02	5.253E-03	-5.607E-03	1.358E-02	0.000E+00
0.508	0.8454	5.7171E-02	1.065E-02	4.950E-03	-5.541E-03	1.170E-02	0.000E+00
0.572	0.8779	4.6792E-02	8.107E-03	4.562E-03	-4.880E-03	9.502E-03	0.000E+00
0.635	0.9050	3.9640E-02	6.297E-03	4.139E-03	-4.260E-03	7.828E-03	0.000E+00
0.698	0.9333	2.6520E-02	4.074E-03	3.017E-03	-2.861E-03	5.318E-03	0.000E+00
0.762	0.9531	2.1442E-02	3.229E-03	2.492E-03	-2.323E-03	4.291E-03	0.000E+00
0.825	0.9686	1.5500E-02	1.975E-03	1.730E-03	-1.457E-03	2.779E-03	0.000E+00
0.889	0.9814	1.1531E-02	1.348E-03	1.204E-03	-9.658E-04	1.914E-03	0.000E+00
1.016	0.9963	7.4738E-03	4.072E-04	4.504E-04	-2.461E-04	6.432E-04	0.000E+00
1.143	1.0013	6.0445E-03	1.760E-04	1.985E-04	-3.210E-05	2.809E-04	0.000E+00
1.270	1.0019	4.0828E-03	1.558E-04	1.767E-04	-2.655E-05	2.494E-04	0.000E+00
1.397	1.0012	1.0876E-03	1.303E-04	1.232E-04	-5.048E-06	1.969E-04	0.000E+00
1.524	1.0012	3.3921E-04	1.208E-04	1.193E-04	-2.407E-06	1.801E-04	0.000E+00
1.778	1.0004	1.3165E-03	1.192E-04	1.214E-04	5.800E-07	1.804E-04	0.000E+00
2.032	1.0000	2.7445E-03	1.215E-04	1.224E-04	6.389E-06	1.829E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = -3.000$ cm; Obtained 10/4/85-17:45:19
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.2233	2.4767E-02	4.339E-02	1.357E-02	9.844E-04	4.272E-02	1.529E-01
0.102	0.3689	4.1319E-02	4.432E-02	1.490E-02	1.424E-03	4.442E-02	5.111E-02
0.152	0.4665	5.7623E-02	3.887E-02	1.344E-02	1.013E-03	3.923E-02	2.148E-02
0.203	0.5311	7.0333E-02	3.341E-02	1.199E-02	9.650E-04	3.405E-02	1.003E-02
0.254	0.5992	8.4957E-02	2.798E-02	9.791E-03	2.204E-05	2.833E-02	5.273E-03
0.317	0.6403	9.7924E-02	2.153E-02	8.283E-03	-7.079E-04	2.236E-02	2.148E-03
0.381	0.7063	1.0296E-01	1.773E-02	6.669E-03	-2.925E-03	1.830E-02	9.766E-04
0.444	0.7490	1.0405E-01	1.344E-02	5.680E-03	-3.431E-03	1.434E-02	3.255E-04
0.508	0.7842	1.0713E-01	1.143E-02	5.181E-03	-4.275E-03	1.246E-02	2.604E-04
0.572	0.8076	1.0812E-01	1.027E-02	4.998E-03	-4.670E-03	1.145E-02	0.000E+00
0.635	0.8421	9.8525E-02	9.944E-03	5.460E-03	-5.565E-03	1.155E-02	0.000E+00
0.698	0.8802	8.4368E-02	8.825E-03	5.378E-03	-5.621E-03	1.065E-02	0.000E+00
0.762	0.9055	7.6645E-02	6.992E-03	5.195E-03	-5.195E-03	9.141E-03	0.000E+00
0.825	0.9324	6.2228E-02	5.450E-03	4.811E-03	-4.565E-03	7.696E-03	0.000E+00
0.889	0.9567	4.5955E-02	3.635E-03	3.827E-03	-3.303E-03	5.596E-03	0.000E+00
1.016	0.9832	2.6190E-02	1.571E-03	2.307E-03	-1.666E-03	2.908E-03	0.000E+00
1.143	0.9957	1.2150E-02	6.169E-04	1.160E-03	-6.920E-04	1.332E-03	0.000E+00
1.270	1.0003	3.0916E-03	2.030E-04	3.614E-04	-1.427E-04	4.233E-04	0.000E+00
1.397	1.0003	1.5092E-03	1.372E-04	2.017E-04	-5.525E-05	2.541E-04	0.000E+00
1.524	1.0019	2.3891E-04	1.194E-04	1.215E-04	-3.724E-06	1.807E-04	0.000E+00
1.778	1.0007	1.4841E-03	1.162E-04	1.163E-04	-4.528E-06	1.744E-04	0.000E+00
2.032	1.0000	7.4784E-04	1.083E-04	1.118E-04	8.669E-07	1.650E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = -2.500$ cm; Obtained 10/1/85-22:55:33
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.0554	1.0379E-02	3.204E-02	1.122E-02	2.179E-03	3.244E-02	4.059E-01
0.102	0.1574	1.9333E-02	4.038E-02	1.129E-02	1.721E-03	3.876E-02	2.268E-01
0.152	0.2595	3.1679E-02	4.189E-02	1.152E-02	1.278E-03	4.006E-02	1.077E-01
0.203	0.3480	4.3897E-02	4.484E-02	9.930E-03	1.972E-03	4.108E-02	5.902E-02
0.254	0.4341	6.3681E-02	4.008E-02	1.013E-02	1.958E-03	3.766E-02	2.137E-02
0.317	0.5176	8.6482E-02	3.477E-02	8.763E-03	1.553E-03	3.265E-02	7.774E-03
0.381	0.5799	1.0075E-01	2.928E-02	7.752E-03	1.092E-03	2.777E-02	3.064E-03
0.444	0.6399	1.1602E-01	2.325E-02	6.678E-03	-4.716E-05	2.245E-02	1.264E-03
0.508	0.6921	1.2262E-01	1.731E-02	5.421E-03	-9.957E-04	1.705E-02	2.298E-04
0.572	0.7251	1.2879E-01	1.459E-02	4.771E-03	-1.439E-03	1.452E-02	3.064E-04
0.635	0.7516	1.3559E-01	1.235E-02	4.351E-03	-2.254E-03	1.253E-02	3.833E-05
0.698	0.7889	1.3541E-01	1.001E-02	4.089E-03	-2.614E-03	1.057E-02	3.833E-05
0.762	0.8181	1.3326E-01	9.162E-03	4.132E-03	-3.292E-03	9.970E-03	3.833E-05
0.825	0.8567	1.2344E-01	7.481E-03	4.042E-03	-3.784E-03	8.642E-03	0.000E+00
0.889	0.8863	1.1005E-01	6.543E-03	4.455E-03	-4.188E-03	8.248E-03	0.000E+00
1.016	0.9365	7.8938E-02	4.001E-03	4.802E-03	-3.816E-03	6.602E-03	0.000E+00
1.143	0.9701	4.8226E-02	2.095E-03	4.044E-03	-2.595E-03	4.605E-03	0.000E+00
1.270	0.9870	2.6826E-02	1.047E-03	2.624E-03	-1.444E-03	2.753E-03	0.000E+00
1.397	0.9972	1.1309E-02	4.720E-04	1.187E-03	-5.671E-04	1.244E-03	0.000E+00
1.524	1.0018	2.5373E-03	2.120E-04	4.123E-04	-1.418E-04	4.682E-04	0.000E+00
1.778	1.0015	6.9572E-04	1.345E-04	1.424E-04	3.416E-06	2.077E-04	0.000E+00
2.032	1.0000	3.0658E-04	1.327E-04	1.381E-04	2.413E-05	2.030E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = -2.000$ cm; Obtained 10/4/85-18:29:49 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	-0.0087	1.0866E-02	2.645E-02	1.172E-02	2.468E-03	2.863E-02	5.655E-01
0.102	0.0803	9.0575E-03	3.333E-02	1.462E-02	7.429E-04	3.596E-02	3.599E-01
0.152	0.1620	6.4794E-03	3.787E-02	1.576E-02	-5.347E-04	4.023E-02	2.236E-01
0.203	0.2517	1.0786E-02	3.980E-02	1.506E-02	2.803E-04	4.115E-02	1.143E-01
0.254	0.3234	3.3668E-02	4.046E-02	1.570E-02	1.413E-03	4.212E-02	7.381E-02
0.317	0.4167	5.2646E-02	3.794E-02	1.524E-02	2.365E-03	3.988E-02	3.223E-02
0.381	0.5027	7.4465E-02	3.083E-02	1.408E-02	2.409E-03	3.368E-02	1.156E-02
0.444	0.5663	9.2458E-02	2.678E-02	1.264E-02	2.413E-03	2.957E-02	5.469E-03
0.508	0.6272	1.1065E-01	2.073E-02	9.908E-03	1.422E-03	2.298E-02	1.953E-03
0.572	0.6488	1.1900E-01	1.777E-02	9.245E-03	1.193E-03	2.026E-02	8.464E-04
0.635	0.7169	1.2579E-01	1.292E-02	6.918E-03	-1.900E-04	1.488E-02	2.604E-04
0.698	0.7410	1.3267E-01	1.094E-02	5.504E-03	-4.542E-04	1.233E-02	0.000E+00
0.762	0.7742	1.4696E-01	8.595E-03	4.077E-03	-1.041E-03	9.504E-03	0.000E+00
0.825	0.8037	1.4850E-01	7.179E-03	3.414E-03	-1.564E-03	7.945E-03	6.509E-05
0.889	0.8348	1.4608E-01	6.250E-03	2.870E-03	-1.672E-03	6.840E-03	6.509E-05
1.016	0.8942	1.2935E-01	3.925E-03	3.182E-03	-2.540E-03	5.331E-03	0.000E+00
1.143	0.9233	1.1431E-01	2.845E-03	3.803E-03	-2.639E-03	4.987E-03	0.000E+00
1.270	0.9579	7.6740E-02	1.747E-03	4.412E-03	-2.499E-03	4.619E-03	0.000E+00
1.397	0.9756	4.6064E-02	1.295E-03	3.868E-03	-2.014E-03	3.872E-03	0.000E+00
1.524	0.9939	1.5970E-02	5.429E-04	1.469E-03	-7.180E-04	1.509E-03	0.000E+00
1.778	1.0029	1.7292E-03	1.794E-04	2.857E-04	-7.017E-05	3.489E-04	0.000E+00
2.032	1.0026	2.1167E-04	1.478E-04	1.530E-04	-9.942E-06	2.256E-04	0.000E+00
2.286	1.0007	2.3745E-04	1.244E-04	1.285E-04	1.400E-05	1.897E-04	0.000E+00
2.540	1.0000	-5.6165E-04	1.216E-04	1.312E-04	1.585E-05	1.896E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = -1.500$ cm; Obtained 10/2/85-17:49:05 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	-0.0575	6.8534E-04	2.450E-02	8.071E-03	1.450E-05	2.442E-02	6.692E-01
0.102	0.0037	-1.2896E-03	3.085E-02	1.025E-02	-1.506E-03	3.083E-02	5.190E-01
0.152	0.0489	-1.4125E-03	3.859E-02	1.004E-02	-2.753E-03	3.647E-02	4.352E-01
0.203	0.1353	6.1066E-03	4.423E-02	9.846E-03	-2.329E-03	4.056E-02	2.841E-01
0.254	0.2107	1.6843E-02	4.914E-02	9.523E-03	-2.061E-03	4.400E-02	1.867E-01
0.317	0.3060	2.4470E-02	4.600E-02	1.354E-02	-7.517E-04	4.466E-02	9.559E-02
0.381	0.4105	4.4585E-02	4.299E-02	1.287E-02	1.005E-03	4.190E-02	4.004E-02
0.444	0.4655	5.9369E-02	3.753E-02	1.252E-02	1.329E-03	3.753E-02	2.214E-02
0.508	0.5309	7.9338E-02	3.338E-02	1.183E-02	1.783E-03	3.391E-02	1.389E-02
0.572	0.5779	9.1650E-02	2.851E-02	1.047E-02	1.620E-03	2.923E-02	5.697E-03
0.635	0.6283	1.0225E-01	2.209E-02	9.414E-03	1.579E-03	2.363E-02	3.092E-03
0.698	0.7045	1.2769E-01	1.473E-02	6.631E-03	3.736E-04	1.602E-02	6.511E-04
0.762	0.7265	1.3568E-01	1.577E-02	5.642E-03	-8.603E-05	1.454E-02	7.324E-04
0.825	0.7556	1.4190E-01	9.608E-03	4.757E-03	-1.700E-04	1.077E-02	0.000E+00
0.889	0.7839	1.4813E-01	8.677E-03	3.638E-03	-5.086E-04	9.236E-03	8.136E-05
1.016	0.8451	1.5710E-01	4.562E-03	1.986E-03	-8.167E-04	4.911E-03	0.000E+00
1.143	0.8800	1.5993E-01	2.598E-03	1.413E-03	-8.301E-04	3.008E-03	0.000E+00
1.270	0.9110	1.4976E-01	1.460E-03	1.783E-03	-1.107E-03	2.432E-03	0.000E+00
1.397	0.9323	1.2469E-01	1.268E-03	3.262E-03	-1.729E-03	3.398E-03	0.000E+00
1.524	0.9497	9.8369E-02	1.338E-03	4.292E-03	-2.163E-03	4.222E-03	0.000E+00
1.778	0.9862	2.6958E-02	8.315E-04	2.708E-03	-1.350E-03	2.655E-03	0.000E+00
2.032	0.9981	3.7114E-03	2.260E-04	5.562E-04	-2.267E-04	5.867E-04	0.000E+00
2.286	0.9983	-3.5388E-04	9.953E-05	1.062E-04	8.524E-07	1.543E-04	0.000E+00
2.540	1.0001	-1.5614E-03	1.006E-04	1.070E-04	-2.932E-06	1.557E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = -0.500$ cm; Obtained 10/2/85-20:30:21
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	-0.1389	-7.8508E-03	1.480E-02	8.719E-03	2.534E-03	1.764E-02	8.796E-01
0.102	-0.1056	-1.5967E-02	1.879E-02	1.050E-02	2.450E-03	2.197E-02	8.130E-01
0.152	-0.0656	-2.0530E-02	2.331E-02	1.228E-02	2.036E-03	2.669E-02	7.221E-01
0.203	-0.0141	-1.9467E-02	3.095E-02	1.489E-02	2.345E-03	3.438E-02	5.995E-01
0.254	0.0400	-2.1900E-02	3.708E-02	1.563E-02	1.755E-03	3.953E-02	4.761E-01
0.317	0.1324	-1.9023E-02	4.394E-02	1.539E-02	1.037E-03	4.449E-02	3.006E-01
0.381	0.2066	-1.2768E-03	4.663E-02	1.678E-02	1.507E-03	4.755E-02	1.947E-01
0.444	0.2824	8.9795E-03	4.569E-02	1.615E-02	1.262E-03	4.637E-02	1.160E-01
0.508	0.3572	2.6433E-02	4.245E-02	1.609E-02	1.387E-03	4.390E-02	5.843E-02
0.572	0.4144	3.6887E-02	3.949E-02	1.570E-02	1.633E-03	4.139E-02	3.174E-02
0.635	0.4772	5.4385E-02	3.520E-02	1.473E-02	1.966E-03	3.745E-02	1.457E-02
0.698	0.5253	6.9559E-02	2.941E-02	1.390E-02	1.568E-03	3.248E-02	7.324E-03
0.762	0.5739	8.1608E-02	2.773E-02	1.229E-02	2.381E-03	3.002E-02	3.743E-03
0.825	0.6142	9.6120E-02	2.233E-02	1.147E-02	1.494E-03	2.535E-02	1.383E-03
0.889	0.6738	1.1551E-01	1.906E-02	8.730E-03	1.074E-03	2.084E-02	8.138E-04
1.016	0.7285	1.3486E-01	1.295E-02	6.877E-03	1.049E-04	1.487E-02	2.441E-04
1.143	0.8122	1.5609E-01	7.481E-03	3.514E-03	-2.419E-04	8.246E-03	0.000E+00
1.270	0.8554	1.6503E-01	4.650E-03	2.149E-03	-2.047E-04	5.099E-03	0.000E+00
1.397	0.8959	1.7128E-01	1.507E-03	8.701E-04	-3.639E-04	1.783E-03	0.000E+00
1.524	0.9073	1.6842E-01	8.890E-04	7.521E-04	-3.510E-04	1.231E-03	0.000E+00
1.778	0.9242	1.4639E-01	6.027E-04	1.554E-03	-7.333E-04	1.617E-03	0.000E+00
2.032	0.9608	6.9851E-02	1.154E-03	3.881E-03	-1.930E-03	3.776E-03	0.000E+00
2.286	0.9909	1.4258E-02	4.583E-04	1.394E-03	-6.493E-04	1.389E-03	0.000E+00
2.540	0.9992	2.3703E-03	1.318E-04	1.761E-04	-2.875E-05	2.309E-04	0.000E+00
2.794	1.0002	-1.5291E-04	1.048E-04	1.141E-04	8.940E-06	1.641E-04	0.000E+00
3.048	1.0000	4.1733E-05	1.335E-04	1.348E-04	1.287E-05	2.012E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 0.000$ cm; Obtained 10/2/85-21:47:26
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	-0.0501	-1.2110E-02	2.033E-02	2.039E-02	1.760E-02	3.054E-02	7.358E-01
0.102	-0.0827	-5.2772E-02	1.658E-02	1.520E-02	1.009E-02	2.384E-02	7.997E-01
0.152	-0.0824	-7.3985E-02	1.698E-02	1.190E-02	5.555E-03	2.166E-02	7.855E-01
0.203	-0.0509	-7.5269E-02	2.279E-02	1.382E-02	5.237E-03	2.745E-02	7.023E-01
0.254	-0.0165	-7.1723E-02	2.997E-02	1.417E-02	5.249E-03	3.311E-02	6.115E-01
0.317	0.0354	-6.8815E-02	3.909E-02	1.598E-02	5.176E-03	4.130E-02	5.081E-01
0.381	0.1064	-5.5761E-02	4.806E-02	1.723E-02	5.565E-03	4.897E-02	3.719E-01
0.444	0.1934	-3.9094E-02	5.202E-02	1.840E-02	5.862E-03	5.281E-02	2.376E-01
0.508	0.2670	-1.6411E-02	5.263E-02	1.811E-02	5.979E-03	5.305E-02	1.496E-01
0.572	0.3338	8.1154E-04	5.020E-02	1.784E-02	5.004E-03	5.103E-02	9.180E-02
0.635	0.3992	2.4412E-02	4.449E-02	1.767E-02	4.814E-03	4.661E-02	4.818E-02
0.698	0.4584	3.5270E-02	3.876E-02	1.778E-02	4.674E-03	4.240E-02	2.596E-02
0.762	0.5151	6.8364E-02	3.291E-02	1.559E-02	2.639E-03	3.638E-02	1.123E-02
0.825	0.5442	7.8458E-02	3.154E-02	1.486E-02	3.385E-03	3.480E-02	8.870E-03
0.889	0.6064	9.9607E-02	2.529E-02	1.298E-02	2.272E-03	2.870E-02	3.011E-03
1.016	0.6676	1.1910E-01	1.931E-02	1.017E-02	1.262E-03	2.211E-02	1.221E-03
1.143	0.7420	1.4701E-01	1.422E-02	6.787E-03	2.032E-04	1.576E-02	4.883E-04
1.270	0.7983	1.6195E-01	9.143E-03	4.416E-03	-4.020E-04	1.017E-02	8.136E-05
1.397	0.8458	1.7325E-01	5.025E-03	2.568E-03	-5.607E-04	5.694E-03	0.000E+00
1.524	0.8864	1.7817E-01	2.198E-03	1.177E-03	-4.433E-04	2.531E-03	0.000E+00
1.778	0.9121	1.6571E-01	4.162E-04	5.957E-04	-2.697E-04	7.590E-04	0.000E+00
2.032	0.9350	1.2329E-01	9.331E-04	2.930E-03	-1.382E-03	2.897E-03	0.000E+00
2.286	0.9721	5.2159E-02	1.068E-03	3.349E-03	-1.685E-03	3.313E-03	0.000E+00
2.540	0.9929	1.4596E-02	4.862E-04	1.494E-03	-6.711E-04	1.485E-03	0.000E+00
2.794	0.9978	1.5865E-03	1.768E-04	2.953E-04	-8.570E-05	3.540E-04	0.000E+00
3.048	1.0000	-1.9091E-03	1.285E-04	1.338E-04	1.103E-06	1.967E-04	0.000E+00
3.302	1.0001	-2.0109E-03	1.371E-04	1.433E-04	8.672E-07	2.103E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 0.383$ cm; Obtained 10/2/85-22:54:37
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.0043	-1.9270E-02	3.103E-02	2.674E-02	1.823E-02	4.333E-02	5.565E-01
0.102	0.0347	-3.9921E-02	3.749E-02	2.298E-02	1.160E-02	4.535E-02	4.989E-01
0.152	0.0855	-5.0585E-02	4.489E-02	2.208E-02	7.427E-03	5.022E-02	4.020E-01
0.203	0.1480	-4.4685E-02	5.178E-02	2.146E-02	7.220E-03	5.493E-02	3.073E-01
0.254	0.2104	-3.0433E-02	5.452E-02	2.195E-02	7.853E-03	5.736E-02	2.206E-01
0.317	0.2718	-1.6031E-02	5.512E-02	2.301E-02	7.966E-03	5.859E-02	1.521E-01
0.381	0.3412	2.7201E-03	5.083E-02	2.167E-02	7.326E-03	5.438E-02	9.451E-02
0.444	0.3890	2.2901E-02	4.725E-02	2.252E-02	7.178E-03	5.233E-02	5.762E-02
0.508	0.4441	4.2142E-02	4.275E-02	2.045E-02	6.363E-03	4.740E-02	3.581E-02
0.572	0.5030	7.0413E-02	3.605E-02	1.838E-02	5.183E-03	4.082E-02	1.660E-02
0.635	0.5639	9.2753E-02	2.966E-02	1.691E-02	3.961E-03	3.493E-02	6.673E-03
0.698	0.5930	1.0615E-01	2.805E-02	1.487E-02	3.728E-03	3.219E-02	4.720E-03
0.762	0.6394	1.2520E-01	2.404E-02	1.297E-02	2.754E-03	2.775E-02	2.197E-03
0.825	0.6620	1.3215E-01	2.148E-02	1.135E-02	2.032E-03	2.462E-02	1.465E-03
0.889	0.7143	1.5051E-01	1.674E-02	8.799E-03	9.578E-04	1.916E-02	5.696E-04
1.016	0.7920	1.7082E-01	1.074E-02	5.387E-03	-4.195E-06	1.209E-02	2.441E-04
1.143	0.8376	1.7976E-01	6.535E-03	3.273E-03	-4.056E-04	7.356E-03	0.000E+00
1.270	0.8768	1.8721E-01	3.153E-03	1.703E-03	-5.997E-04	3.642E-03	0.000E+00
1.397	0.8993	1.8156E-01	9.385E-04	7.816E-04	-4.397E-04	1.290E-03	0.000E+00
1.524	0.9095	1.7095E-01	5.240E-04	6.797E-04	-3.423E-04	9.028E-04	0.000E+00
1.778	0.9237	1.4380E-01	6.061E-04	1.502E-03	-6.953E-04	1.581E-03	0.000E+00
2.032	0.9377	1.1484E-01	8.432E-04	2.545E-03	-1.227E-03	2.541E-03	0.000E+00
2.286	0.9864	1.8859E-02	5.808E-04	1.889E-03	-8.595E-04	1.852E-03	0.000E+00
2.540	0.9956	2.1237E-03	2.175E-04	4.489E-04	-1.624E-04	4.998E-04	0.000E+00
2.794	0.9977	-1.8152E-03	1.406E-04	1.438E-04	3.687E-06	2.134E-04	0.000E+00
3.302	1.0000	-7.0624E-04	1.348E-04	1.408E-04	5.597E-06	2.067E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = 0.766$ cm; Obtained 10/4/85-20:36:58 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.0938	6.9128E-03	3.605E-02	2.202E-02	1.036E-02	4.355E-02	3.508E-01
0.102	0.1731	3.6921E-03	4.779E-02	2.037E-02	7.392E-03	5.112E-02	2.482E-01
0.152	0.2508	5.3503E-03	5.199E-02	2.122E-02	6.623E-03	5.491E-02	1.682E-01
0.203	0.3154	1.5617E-02	5.345E-02	2.103E-02	6.917E-03	5.586E-02	1.115E-01
0.254	0.3714	3.2674E-02	5.045E-02	2.108E-02	7.631E-03	5.365E-02	7.389E-02
0.317	0.4365	5.6914E-02	4.482E-02	2.010E-02	7.549E-03	4.869E-02	4.141E-02
0.381	0.4797	7.6382E-02	4.022E-02	1.892E-02	6.817E-03	4.435E-02	2.461E-02
0.444	0.5243	1.0017E-01	3.609E-02	1.750E-02	6.044E-03	4.019E-02	1.550E-02
0.508	0.5862	1.3067E-01	2.857E-02	1.502E-02	4.498E-03	3.269E-02	6.901E-03
0.572	0.6147	1.4552E-01	2.518E-02	1.348E-02	3.592E-03	2.900E-02	3.841E-03
0.635	0.6511	1.6168E-01	2.238E-02	1.216E-02	2.984E-03	2.590E-02	3.776E-03
0.698	0.6941	1.8118E-01	1.788E-02	9.740E-03	1.781E-03	2.071E-02	1.042E-03
0.762	0.7335	1.9219E-01	1.499E-02	7.432E-03	1.112E-03	1.682E-02	5.859E-04
0.825	0.7581	1.9709E-01	1.274E-02	6.437E-03	4.142E-04	1.438E-02	3.906E-04
0.889	0.8024	2.0503E-01	9.698E-03	4.419E-03	-5.552E-04	1.059E-02	0.000E+00
1.016	0.8479	2.0938E-01	5.271E-03	2.522E-03	-1.197E-03	5.845E-03	0.000E+00
1.143	0.8806	2.0122E-01	2.628E-03	1.599E-03	-1.070E-03	3.171E-03	0.000E+00
1.270	0.8965	1.9157E-01	1.244E-03	1.019E-03	-7.242E-04	1.698E-03	0.000E+00
1.397	0.9051	1.8215E-01	6.869E-04	7.159E-04	-4.845E-04	1.052E-03	0.000E+00
1.524	0.9157	1.6551E-01	4.170E-04	7.050E-04	-3.357E-04	8.415E-04	0.000E+00
1.778	0.9328	1.3095E-01	6.554E-04	2.088E-03	-9.597E-04	2.057E-03	0.000E+00
2.032	0.9607	7.3758E-02	1.027E-03	3.614E-03	-1.739E-03	3.481E-03	0.000E+00
2.286	0.9936	1.0193E-02	3.970E-04	1.188E-03	-5.490E-04	1.189E-03	0.000E+00
2.540	1.0000	3.7215E-04	1.196E-04	1.715E-04	-2.448E-05	2.183E-04	0.000E+00
2.794	0.9997	5.7221E-05	1.103E-04	1.176E-04	1.175E-05	1.710E-04	0.000E+00
3.048	1.0000	-9.8584E-04	1.099E-04	1.162E-04	1.306E-05	1.696E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 1.149$ cm; Obtained 10/3/85-17:04:36
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.2273	5.8538E-02	4.915E-02	2.192E-02	9.691E-03	5.330E-02	1.748E-01
0.102	0.3323	6.6413E-02	5.064E-02	2.095E-02	7.339E-03	5.370E-02	9.652E-02
0.152	0.4063	7.5758E-02	4.652E-02	2.010E-02	7.287E-03	4.996E-02	5.591E-02
0.203	0.4615	9.1627E-02	3.993E-02	1.958E-02	6.711E-03	4.463E-02	3.166E-02
0.254	0.5024	1.0231E-01	3.599E-02	1.821E-02	7.053E-03	4.065E-02	2.230E-02
0.317	0.5543	1.3377E-01	2.962E-02	1.671E-02	5.530E-03	3.475E-02	1.066E-02
0.381	0.6057	1.6388E-01	2.435E-02	1.338E-02	4.482E-03	2.830E-02	6.266E-03
0.444	0.6291	1.7717E-01	2.067E-02	1.223E-02	3.961E-03	2.468E-02	3.906E-03
0.508	0.6747	2.0087E-01	1.675E-02	1.046E-02	3.146E-03	2.041E-02	2.116E-03
0.572	0.7105	2.1859E-01	1.291E-02	8.074E-03	1.812E-03	1.574E-02	1.221E-03
0.635	0.7366	2.2774E-01	1.159E-02	6.790E-03	1.384E-03	1.378E-02	6.511E-04
0.698	0.7661	2.3815E-01	9.666E-03	5.224E-03	2.688E-04	1.117E-02	5.698E-04
0.762	0.7932	2.4272E-01	7.296E-03	4.169E-03	-9.935E-05	8.599E-03	2.442E-04
0.825	0.8231	2.4420E-01	5.377E-03	2.937E-03	-1.337E-03	6.236E-03	0.000E+00
0.889	0.8401	2.4171E-01	4.438E-03	2.665E-03	-1.442E-03	5.327E-03	8.136E-05
1.016	0.8648	2.2484E-01	2.914E-03	1.915E-03	-1.615E-03	3.622E-03	0.000E+00
1.143	0.8908	2.0361E-01	1.668E-03	1.518E-03	-1.235E-03	2.390E-03	0.000E+00
1.270	0.9031	1.8867E-01	9.609E-04	1.055E-03	-8.141E-04	1.512E-03	0.000E+00
1.397	0.9144	1.7026E-01	5.383E-04	7.885E-04	-4.777E-04	9.951E-04	0.000E+00
1.524	0.9222	1.5523E-01	4.003E-04	7.682E-04	-3.833E-04	8.764E-04	0.000E+00
1.778	0.9451	1.0878E-01	8.343E-04	2.891E-03	-1.377E-03	2.794E-03	0.000E+00
2.032	0.9809	4.1468E-02	8.770E-04	2.974E-03	-1.471E-03	2.888E-03	0.000E+00
2.286	1.0011	8.1623E-04	1.589E-04	2.908E-04	-1.047E-04	3.373E-04	0.000E+00
2.540	1.0030	-1.2742E-03	1.113E-04	1.296E-04	-7.246E-07	1.806E-04	0.000E+00
2.794	1.0028	-1.2434E-03	1.034E-04	1.118E-04	1.401E-06	1.614E-04	0.000E+00
3.048	1.0000	2.1264E-04	1.071E-04	1.179E-04	4.032E-06	1.687E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 1.915$ cm; Obtained 10/3/85-21:09:35
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.3751	1.9584E-01	2.608E-02	2.048E-02	4.301E-03	3.492E-02	1.224E-02
0.102	0.4454	1.8995E-01	2.748E-02	1.869E-02	3.497E-03	3.463E-02	8.919E-03
0.152	0.5009	1.9573E-01	2.615E-02	1.675E-02	3.989E-03	3.221E-02	7.031E-03
0.203	0.5396	2.0072E-01	2.337E-02	1.579E-02	4.008E-03	2.937E-02	3.906E-03
0.254	0.5773	2.1769E-01	2.078E-02	1.413E-02	4.228E-03	2.619E-02	4.362E-03
0.317	0.6160	2.4744E-01	1.473E-02	1.173E-02	2.975E-03	1.985E-02	1.302E-03
0.381	0.6423	2.7257E-01	1.168E-02	9.636E-03	2.375E-03	1.599E-02	1.107E-03
0.444	0.6650	2.8790E-01	9.628E-03	8.027E-03	2.218E-03	1.324E-02	1.302E-04
0.508	0.6880	3.1036E-01	6.951E-03	5.829E-03	9.858E-04	9.585E-03	2.604E-04
0.572	0.7074	3.1784E-01	6.062E-03	4.837E-03	5.651E-04	8.174E-03	1.302E-04
0.635	0.7221	3.2509E-01	4.830E-03	3.368E-03	-8.414E-05	6.148E-03	6.515E-05
0.698	0.7378	3.2500E-01	4.401E-03	2.846E-03	-4.427E-04	5.436E-03	0.000E+00
0.762	0.7524	3.2185E-01	3.953E-03	2.187E-03	-9.958E-04	4.605E-03	0.000E+00
0.825	0.7703	3.1118E-01	4.160E-03	2.313E-03	-1.450E-03	4.855E-03	0.000E+00
0.889	0.7891	2.9734E-01	4.236E-03	2.480E-03	-2.101E-03	5.037E-03	0.000E+00
1.016	0.8282	2.6234E-01	4.756E-03	3.522E-03	-3.424E-03	6.209E-03	0.000E+00
1.143	0.8727	2.1651E-01	4.068E-03	3.654E-03	-3.444E-03	5.792E-03	0.000E+00
1.270	0.9037	1.7947E-01	2.447E-03	2.846E-03	-2.357E-03	3.969E-03	0.000E+00
1.397	0.9307	1.4379E-01	1.137E-03	2.272E-03	-1.352E-03	2.557E-03	0.000E+00
1.524	0.9453	1.1604E-01	9.085E-04	2.571E-03	-1.311E-03	2.609E-03	0.000E+00
1.778	0.9832	4.1551E-02	8.782E-04	2.970E-03	-1.460E-03	2.886E-03	0.000E+00
2.032	1.0012	3.3496E-03	1.983E-04	4.785E-04	-1.889E-04	5.077E-04	0.000E+00
2.286	1.0006	-1.4544E-03	9.893E-05	1.234E-04	-1.208E-05	1.667E-04	0.000E+00
2.540	1.0001	-5.0309E-03	8.689E-05	9.737E-05	3.415E-06	1.382E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = 2.681$ cm; Obtained 10/3/85-21:53:18 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.4215	2.9678E-01	1.496E-02	1.359E-02	4.767E-03	2.141E-02	9.115E-04
0.102	0.4823	2.8639E-01	1.605E-02	1.290E-02	2.944E-03	2.171E-02	9.115E-04
0.152	0.5262	2.8868E-01	1.447E-02	1.098E-02	2.279E-03	1.909E-02	8.463E-04
0.203	0.5581	2.9577E-01	1.233E-02	9.728E-03	1.996E-03	1.654E-02	7.161E-04
0.254	0.5820	3.0666E-01	1.028E-02	8.486E-03	1.819E-03	1.407E-02	4.557E-04
0.317	0.6035	3.2529E-01	7.712E-03	6.956E-03	1.345E-03	1.100E-02	3.255E-04
0.381	0.6176	3.4157E-01	5.974E-03	5.021E-03	7.637E-04	8.246E-03	1.953E-04
0.444	0.6257	3.5748E-01	4.279E-03	3.836E-03	5.120E-04	6.087E-03	1.302E-04
0.508	0.6354	3.6464E-01	3.862E-03	3.310E-03	2.934E-04	5.379E-03	0.000E+00
0.572	0.6392	3.7464E-01	3.254E-03	2.437E-03	6.750E-05	4.268E-03	6.509E-05
0.635	0.6430	3.7889E-01	3.059E-03	2.085E-03	8.903E-05	3.858E-03	0.000E+00
0.698	0.6536	3.7964E-01	2.841E-03	1.669E-03	-1.011E-04	3.382E-03	6.515E-05
0.762	0.6597	3.7854E-01	2.936E-03	1.509E-03	-2.405E-04	3.334E-03	6.509E-05
0.825	0.6602	3.8020E-01	2.695E-03	1.252E-03	-3.236E-04	2.960E-03	0.000E+00
0.889	0.6668	3.7394E-01	2.922E-03	1.256E-03	-4.857E-04	3.133E-03	0.000E+00
1.016	0.6901	3.5259E-01	3.777E-03	1.581E-03	-1.123E-03	4.018E-03	0.000E+00
1.143	0.7313	3.1038E-01	6.461E-03	3.793E-03	-3.142E-03	7.691E-03	0.000E+00
1.270	0.7862	2.5757E-01	1.140E-02	8.984E-03	-8.406E-03	1.529E-02	0.000E+00
1.397	0.8944	1.5017E-01	1.058E-02	1.117E-02	-9.936E-03	1.631E-02	0.000E+00
1.524	0.9511	7.4077E-02	5.943E-03	7.783E-03	-6.244E-03	1.029E-02	0.000E+00
1.778	0.9993	7.2383E-04	3.604E-04	6.647E-04	-3.743E-04	7.688E-04	0.000E+00
2.032	1.0014	-4.3836E-03	8.874E-05	1.050E-04	2.639E-06	1.453E-04	0.000E+00
2.286	1.0001	-5.2895E-03	8.275E-05	9.030E-05	4.301E-06	1.298E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = 3.447$ cm; Obtained 10/3/85-22:49:02 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.4640	3.6066E-01	9.306E-03	8.936E-03	3.745E-03	1.368E-02	0.000E+00
0.102	0.5074	3.5398E-01	8.700E-03	7.810E-03	1.681E-03	1.238E-02	6.509E-05
0.152	0.5382	3.5790E-01	7.272E-03	6.454E-03	1.054E-03	1.029E-02	6.509E-05
0.203	0.5554	3.5421E-01	6.957E-03	6.376E-03	7.977E-04	1.000E-02	0.000E+00
0.254	0.5697	3.5839E-01	5.754E-03	5.333E-03	6.779E-04	8.316E-03	6.509E-05
0.317	0.5845	3.7119E-01	4.310E-03	4.085E-03	1.286E-04	6.296E-03	1.953E-04
0.381	0.5902	3.7947E-01	3.481E-03	3.466E-03	6.452E-05	5.210E-03	6.509E-05
0.444	0.5979	3.8270E-01	3.290E-03	2.997E-03	-1.984E-05	4.716E-03	0.000E+00
0.508	0.6019	3.9052E-01	2.768E-03	2.481E-03	-2.796E-05	3.937E-03	0.000E+00
0.572	0.6072	3.9539E-01	2.340E-03	1.913E-03	-1.907E-04	3.190E-03	0.000E+00
0.635	0.6057	3.9967E-01	2.147E-03	1.610E-03	-3.041E-04	2.818E-03	0.000E+00
0.698	0.6083	4.0180E-01	1.886E-03	1.366E-03	-2.112E-04	2.439E-03	0.000E+00
0.762	0.6094	4.0137E-01	1.954E-03	1.292E-03	-1.995E-04	2.435E-03	0.000E+00
0.825	0.6160	4.0039E-01	1.863E-03	1.111E-03	-1.816E-04	2.231E-03	0.000E+00
0.889	0.6154	3.9906E-01	1.816E-03	1.021E-03	-1.754E-04	2.127E-03	0.000E+00
1.016	0.6070	3.9207E-01	2.308E-03	1.123E-03	1.392E-04	2.573E-03	0.000E+00
1.143	0.6061	3.7149E-01	3.948E-03	1.419E-03	5.750E-04	4.025E-03	0.000E+00
1.270	0.5808	3.3562E-01	5.642E-03	1.646E-03	1.909E-04	5.466E-03	0.000E+00
1.397	0.5965	2.9490E-01	6.199E-03	2.925E-03	-2.499E-03	6.842E-03	0.000E+00
1.524	0.6548	2.4484E-01	8.903E-03	5.325E-03	-5.773E-03	1.067E-02	0.000E+00
2.032	1.0025	-1.0258E-02	1.371E-04	1.424E-04	-4.459E-05	2.096E-04	0.000E+00
2.286	1.0018	-9.5308E-03	7.891E-05	8.937E-05	5.628E-06	1.262E-04	0.000E+00
2.540	1.0001	-8.1080E-03	7.925E-05	8.752E-05	8.536E-06	1.251E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 4.213$ cm; Obtained 10/4/85-15:25:16
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.5065	4.1052E-01	4.284E-03	4.325E-03	2.152E-03	6.457E-03	0.000E+00
0.102	0.5327	4.0571E-01	3.839E-03	3.741E-03	1.174E-03	5.685E-03	0.000E+00
0.152	0.5491	4.0003E-01	3.547E-03	3.345E-03	7.884E-04	5.170E-03	0.000E+00
0.203	0.5609	3.9984E-01	3.052E-03	3.217E-03	3.999E-04	4.702E-03	0.000E+00
0.254	0.5693	4.0068E-01	2.669E-03	2.887E-03	1.404E-04	4.168E-03	0.000E+00
0.317	0.5775	4.0541E-01	2.086E-03	2.360E-03	6.262E-05	3.335E-03	0.000E+00
0.381	0.5822	4.0725E-01	1.991E-03	2.061E-03	3.173E-05	3.039E-03	0.000E+00
0.444	0.5866	4.0946E-01	1.776E-03	1.714E-03	-8.716E-05	2.618E-03	0.000E+00
0.508	0.5901	4.1172E-01	1.636E-03	1.472E-03	-1.911E-04	2.331E-03	0.000E+00
0.572	0.5919	4.1377E-01	1.447E-03	1.288E-03	-2.449E-04	2.051E-03	0.000E+00
0.635	0.5924	4.1556E-01	1.466E-03	1.111E-03	-2.728E-04	1.933E-03	0.000E+00
0.698	0.5912	4.1382E-01	1.497E-03	1.025E-03	-3.588E-04	1.892E-03	0.000E+00
0.762	0.5924	4.1233E-01	1.514E-03	9.614E-04	-3.230E-04	1.856E-03	0.000E+00
0.825	0.5907	4.1041E-01	1.601E-03	9.439E-04	-2.600E-04	1.909E-03	0.000E+00
0.889	0.5873	4.0563E-01	1.808E-03	9.790E-04	-7.875E-05	2.091E-03	0.000E+00
1.016	0.5618	3.8535E-01	3.191E-03	1.531E-03	9.100E-04	3.542E-03	0.000E+00
1.143	0.5287	3.6040E-01	2.801E-03	1.365E-03	9.344E-04	3.125E-03	0.000E+00
1.270	0.5138	3.4640E-01	1.549E-03	8.857E-04	3.828E-04	1.826E-03	0.000E+00
1.397	0.5128	3.3765E-01	1.112E-03	6.605E-04	2.180E-04	1.330E-03	0.000E+00
1.524	0.5159	3.2989E-01	8.295E-04	6.052E-04	5.498E-05	1.076E-03	0.000E+00
1.778	0.5537	3.0078E-01	2.256E-03	1.343E-03	-1.368E-03	2.700E-03	0.000E+00
2.032	0.7041	2.0672E-01	8.973E-03	4.835E-03	-6.293E-03	1.036E-02	0.000E+00
2.286	0.9962	-7.7969E-04	1.812E-03	1.677E-03	-1.651E-03	2.617E-03	0.000E+00
2.540	1.0017	-8.1958E-03	9.827E-05	1.072E-04	1.384E-05	1.541E-04	0.000E+00
2.794	1.0001	-7.1550E-03	9.475E-05	1.018E-04	1.190E-05	1.474E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 4.596$ cm; Obtained 10/4/85-21:36:45
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.076	0.5082	4.1373E-01	4.235E-03	4.268E-03	1.807E-03	6.377E-03	0.000E+00
0.102	0.5170	4.0823E-01	4.569E-03	4.379E-03	1.449E-03	6.710E-03	0.000E+00
0.152	0.5345	4.0462E-01	4.109E-03	3.963E-03	8.652E-04	6.053E-03	0.000E+00
0.203	0.5448	4.0448E-01	3.836E-03	3.679E-03	4.761E-04	5.636E-03	0.000E+00
0.254	0.5555	4.0426E-01	3.364E-03	3.317E-03	3.366E-04	5.010E-03	0.000E+00
0.317	0.5622	4.0859E-01	2.993E-03	2.858E-03	2.473E-04	4.388E-03	0.000E+00
0.381	0.5693	4.0938E-01	2.422E-03	2.392E-03	3.546E-05	3.611E-03	0.000E+00
0.444	0.5740	4.1024E-01	2.312E-03	2.068E-03	-8.198E-05	3.286E-03	0.000E+00
0.508	0.5768	4.1099E-01	2.241E-03	2.035E-03	-1.439E-04	3.207E-03	0.000E+00
0.572	0.5800	4.1187E-01	1.993E-03	1.711E-03	-3.008E-04	2.778E-03	0.000E+00
0.635	0.5819	4.1163E-01	1.921E-03	1.538E-03	-3.527E-04	2.594E-03	0.000E+00
0.698	0.5811	4.1310E-01	1.666E-03	1.235E-03	-3.604E-04	2.176E-03	0.000E+00
0.762	0.5790	4.1188E-01	1.748E-03	1.194E-03	-3.767E-04	2.206E-03	0.000E+00
0.825	0.5724	4.0625E-01	2.177E-03	1.387E-03	-8.757E-05	2.672E-03	0.000E+00
0.889	0.5660	3.9980E-01	2.541E-03	1.547E-03	2.021E-04	3.066E-03	0.000E+00
1.016	0.5436	3.8039E-01	3.087E-03	1.722E-03	9.292E-04	3.607E-03	0.000E+00
1.143	0.5167	3.5838E-01	2.469E-03	1.350E-03	8.256E-04	2.864E-03	0.000E+00
1.270	0.5035	3.4469E-01	1.317E-03	8.360E-04	3.251E-04	1.615E-03	0.000E+00
1.397	0.5011	3.3812E-01	8.075E-04	5.727E-04	1.731E-04	1.035E-03	0.000E+00
1.524	0.5040	3.3259E-01	6.557E-04	5.088E-04	9.527E-06	8.734E-04	0.000E+00
1.778	0.5152	3.2043E-01	6.315E-04	4.531E-04	-2.019E-04	8.134E-04	0.000E+00
2.032	0.5681	2.8984E-01	2.886E-03	1.561E-03	-1.685E-03	2.887E-03	0.000E+00
2.540	0.9980	-6.6302E-03	2.909E-04	2.720E-04	-1.965E-04	4.222E-04	0.000E+00
2.794	0.9998	-5.4297E-03	9.435E-05	9.878E-05	5.536E-06	1.448E-04	0.000E+00
3.048	1.0001	-2.3733E-03	9.356E-05	9.988E-05	1.191E-07	1.451E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 4.979$ cm; Obtained 10/4/85-16:30:50
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.5061	4.2441E-01	3.124E-03	3.283E-03	1.805E-03	4.805E-03	0.000E+00
0.102	0.5281	4.2498E-01	2.682E-03	2.825E-03	9.526E-04	4.130E-03	0.000E+00
0.152	0.5417	4.2112E-01	2.447E-03	2.792E-03	5.009E-04	3.929E-03	0.000E+00
0.203	0.5524	4.2049E-01	2.014E-03	2.401E-03	2.409E-04	3.312E-03	0.000E+00
0.254	0.5608	4.1792E-01	1.763E-03	2.294E-03	1.050E-04	3.043E-03	0.000E+00
0.317	0.5667	4.1911E-01	1.685E-03	2.139E-03	1.499E-05	2.868E-03	0.000E+00
0.381	0.5732	4.1863E-01	1.422E-03	1.716E-03	-1.204E-04	2.353E-03	0.000E+00
0.444	0.5767	4.2058E-01	1.250E-03	1.546E-03	-1.768E-04	2.097E-03	0.000E+00
0.508	0.5783	4.2048E-01	1.223E-03	1.478E-03	-2.572E-04	2.025E-03	0.000E+00
0.572	0.5811	4.2181E-01	1.151E-03	1.248E-03	-3.287E-04	1.800E-03	0.000E+00
0.635	0.5824	4.2022E-01	1.130E-03	1.085E-03	-3.424E-04	1.661E-03	0.000E+00
0.698	0.5792	4.1865E-01	1.218E-03	1.050E-03	-3.220E-04	1.700E-03	0.000E+00
0.762	0.5777	4.1283E-01	1.435E-03	1.108E-03	-2.481E-04	1.907E-03	0.000E+00
0.825	0.5684	4.0547E-01	1.783E-03	1.405E-03	9.353E-05	2.391E-03	0.000E+00
0.889	0.5540	3.9487E-01	2.415E-03	1.572E-03	5.597E-04	2.991E-03	0.000E+00
1.016	0.5190	3.6717E-01	2.376E-03	1.410E-03	7.854E-04	2.839E-03	0.000E+00
1.143	0.5031	3.5212E-01	1.590E-03	8.933E-04	3.724E-04	1.862E-03	0.000E+00
1.270	0.5009	3.4650E-01	1.030E-03	6.080E-04	1.512E-04	1.229E-03	0.000E+00
1.397	0.5025	3.4274E-01	7.832E-04	5.171E-04	2.681E-05	9.753E-04	0.000E+00
1.524	0.5020	3.3704E-01	5.128E-04	3.669E-04	-1.639E-05	6.598E-04	0.000E+00
1.778	0.5101	3.2999E-01	3.779E-04	3.029E-04	-9.934E-05	5.107E-04	0.000E+00
2.032	0.5300	3.2345E-01	4.964E-04	3.986E-04	-2.810E-04	6.713E-04	0.000E+00
2.286	0.5843	2.9610E-01	2.171E-03	1.477E-03	-1.651E-03	2.736E-03	0.000E+00
2.794	0.9990	-3.3798E-03	9.735E-05	1.063E-04	-5.783E-06	1.527E-04	0.000E+00
3.048	1.0001	-1.9110E-03	8.253E-05	9.418E-05	8.337E-06	1.325E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 5.183$ cm; Obtained 10/7/85-17:11:49
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.5338	4.2081E-01	2.757E-03	2.981E-03	1.605E-03	4.303E-03	0.000E+00
0.102	0.5520	4.2599E-01	2.179E-03	2.665E-03	8.646E-04	3.633E-03	0.000E+00
0.152	0.5620	4.2459E-01	2.054E-03	2.723E-03	4.855E-04	3.583E-03	0.000E+00
0.203	0.5703	4.2642E-01	1.634E-03	2.325E-03	1.789E-04	2.969E-03	0.000E+00
0.254	0.5757	4.2302E-01	1.684E-03	2.433E-03	5.172E-05	3.087E-03	0.000E+00
0.317	0.5827	4.2417E-01	1.577E-03	2.160E-03	-5.158E-05	2.803E-03	0.000E+00
0.381	0.5850	4.2440E-01	1.446E-03	1.957E-03	-2.117E-04	2.553E-03	0.000E+00
0.444	0.5888	4.2636E-01	1.266E-03	1.650E-03	-2.767E-04	2.187E-03	0.000E+00
0.508	0.5889	4.2609E-01	1.104E-03	1.419E-03	-2.656E-04	1.892E-03	0.000E+00
0.572	0.5871	4.2666E-01	1.181E-03	1.307E-03	-3.294E-04	1.866E-03	0.000E+00
0.635	0.5898	4.2309E-01	1.169E-03	1.209E-03	-3.548E-04	1.784E-03	0.000E+00
0.698	0.5871	4.2051E-01	1.262E-03	1.211E-03	-2.743E-04	1.855E-03	0.000E+00
0.762	0.5833	4.1672E-01	1.434E-03	1.190E-03	-1.501E-04	2.014E-03	0.000E+00
0.825	0.5725	4.0889E-01	1.762E-03	1.386E-03	1.443E-04	2.361E-03	0.000E+00
0.889	0.5651	3.9875E-01	2.456E-03	1.559E-03	5.928E-04	3.011E-03	0.000E+00
1.016	0.5307	3.7175E-01	2.470E-03	1.443E-03	7.538E-04	2.935E-03	0.000E+00
1.143	0.5131	3.5870E-01	1.599E-03	8.632E-04	3.981E-04	1.846E-03	0.000E+00
1.270	0.5084	3.5041E-01	9.237E-04	5.214E-04	1.705E-04	1.084E-03	0.000E+00
1.397	0.5081	3.4482E-01	6.190E-04	3.869E-04	4.640E-05	7.544E-04	0.000E+00
1.524	0.5099	3.4076E-01	5.644E-04	3.678E-04	7.350E-06	6.991E-04	0.000E+00
1.778	0.5167	3.3552E-01	3.206E-04	2.769E-04	-9.193E-05	4.481E-04	0.000E+00
2.032	0.5324	3.3151E-01	3.426E-04	2.868E-04	-1.557E-04	4.721E-04	0.000E+00
2.286	0.5687	3.1271E-01	1.042E-03	7.469E-04	-7.455E-04	1.342E-03	0.000E+00
2.794	0.9946	5.4359E-03	2.048E-03	1.937E-03	-1.896E-03	2.989E-03	0.000E+00
3.048	1.0018	-1.9713E-03	8.874E-05	9.412E-05	8.143E-06	1.371E-04	0.000E+00
3.302	1.0000	-7.5035E-04	8.588E-05	9.331E-05	7.340E-06	1.344E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 5.683$ cm; Obtained 10/7/85-21:28:22
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	U _V	U _{2V2}	GMINUS
0.051	0.7632	5.4890E-02	3.136E-03	1.378E-03	8.685E-04	3.385E-03	0.000E+00
0.102	0.8165	1.1507E-01	2.525E-03	1.494E-03	8.037E-04	3.014E-03	0.000E+00
0.152	0.8338	1.6744E-01	2.681E-03	1.865E-03	1.061E-03	3.410E-03	0.000E+00
0.203	0.8323	2.1082E-01	2.698E-03	2.215E-03	1.195E-03	3.685E-03	0.000E+00
0.254	0.8164	2.4060E-01	2.827E-03	2.555E-03	1.221E-03	4.036E-03	0.000E+00
0.317	0.7972	2.7670E-01	2.651E-03	2.629E-03	8.626E-04	3.960E-03	0.000E+00
0.381	0.7765	3.0546E-01	2.269E-03	2.552E-03	8.497E-04	3.615E-03	0.000E+00
0.444	0.7628	3.2805E-01	1.873E-03	2.251E-03	6.793E-04	3.093E-03	0.000E+00
0.508	0.7449	3.4302E-01	1.865E-03	2.251E-03	5.891E-04	3.087E-03	0.000E+00
0.572	0.7314	3.5798E-01	1.695E-03	2.262E-03	4.020E-04	2.967E-03	0.000E+00
0.635	0.7166	3.6919E-01	1.661E-03	2.186E-03	2.349E-04	2.886E-03	0.000E+00
0.698	0.7056	3.7949E-01	1.548E-03	2.051E-03	3.958E-05	2.699E-03	0.000E+00
0.762	0.6961	3.8603E-01	1.417E-03	1.922E-03	-8.922E-05	2.504E-03	0.000E+00
0.825	0.6873	3.9013E-01	1.183E-03	1.767E-03	-1.977E-04	2.213E-03	0.000E+00
0.889	0.6788	3.9420E-01	1.281E-03	1.748E-03	-2.844E-04	2.271E-03	0.000E+00
1.016	0.6517	3.9461E-01	1.492E-03	1.678E-03	-1.705E-04	2.377E-03	0.000E+00
1.143	0.6301	3.8747E-01	1.819E-03	1.806E-03	-3.012E-05	2.719E-03	0.000E+00
1.270	0.5852	3.6427E-01	1.794E-03	1.378E-03	1.468E-04	2.379E-03	0.000E+00
1.397	0.5709	3.5621E-01	1.504E-03	9.488E-04	2.200E-05	1.840E-03	0.000E+00
1.524	0.5607	3.4511E-01	1.162E-03	8.952E-04	-4.594E-04	1.543E-03	0.000E+00
1.778	0.5554	3.3825E-01	8.603E-04	6.803E-04	-4.142E-04	1.155E-03	0.000E+00
2.032	0.5545	3.3482E-01	5.150E-04	4.535E-04	-2.670E-04	7.264E-04	0.000E+00
2.286	0.5575	3.3327E-01	3.825E-04	3.409E-04	-2.003E-04	5.426E-04	0.000E+00
2.540	0.5660	3.3003E-01	3.679E-04	3.508E-04	-2.143E-04	5.390E-04	0.000E+00
2.794	0.5839	3.1592E-01	6.666E-04	5.329E-04	-4.546E-04	8.996E-04	0.000E+00
3.048	0.6986	2.3303E-01	5.352E-03	3.677E-03	-4.270E-03	6.772E-03	0.000E+00
3.556	0.9988	-1.3994E-03	1.114E-04	1.125E-04	4.610E-06	1.679E-04	0.000E+00
3.810	1.0000	8.5317E-04	1.072E-04	1.079E-04	7.352E-06	1.613E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 6.183$ cm; Obtained 10/7/85-20:36:26
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.7583	-1.6932E-02	4.499E-03	1.351E-03	5.181E-04	4.387E-03	0.000E+00
0.102	0.8245	1.4415E-02	4.102E-03	1.482E-03	6.938E-04	4.188E-03	0.000E+00
0.152	0.8683	3.9983E-02	3.639E-03	1.525E-03	6.117E-04	3.872E-03	0.000E+00
0.203	0.8915	6.2339E-02	3.597E-03	1.747E-03	7.947E-04	4.008E-03	0.000E+00
0.254	0.9014	8.4113E-02	3.531E-03	1.887E-03	9.089E-04	4.064E-03	0.000E+00
0.317	0.8995	1.0928E-01	3.689E-03	2.167E-03	1.100E-03	4.392E-03	0.000E+00
0.381	0.8970	1.3472E-01	3.357E-03	2.330E-03	1.133E-03	4.265E-03	0.000E+00
0.444	0.8899	1.5913E-01	2.990E-03	2.357E-03	9.675E-04	4.010E-03	0.000E+00
0.508	0.8816	1.8062E-01	2.871E-03	2.270E-03	9.776E-04	3.855E-03	0.000E+00
0.572	0.8694	2.0360E-01	2.718E-03	2.222E-03	9.184E-04	3.704E-03	0.000E+00
0.635	0.8596	2.2135E-01	2.580E-03	2.044E-03	9.067E-04	3.468E-03	0.000E+00
0.698	0.8510	2.4296E-01	2.175E-03	1.947E-03	8.168E-04	3.092E-03	0.000E+00
0.762	0.8396	2.5823E-01	2.066E-03	1.853E-03	6.407E-04	2.940E-03	0.000E+00
0.825	0.8304	2.7534E-01	1.756E-03	1.726E-03	5.903E-04	2.612E-03	0.000E+00
0.889	0.8209	2.9027E-01	1.533E-03	1.629E-03	5.133E-04	2.372E-03	0.000E+00
1.016	0.7998	3.1576E-01	1.164E-03	1.488E-03	3.145E-04	1.988E-03	0.000E+00
1.143	0.7786	3.3230E-01	1.067E-03	1.408E-03	1.732E-04	1.856E-03	0.000E+00
1.270	0.7525	3.4001E-01	9.695E-04	1.340E-03	9.676E-05	1.732E-03	0.000E+00
1.397	0.7214	3.4014E-01	1.180E-03	1.383E-03	2.277E-04	1.922E-03	0.000E+00
1.524	0.6850	3.3332E-01	1.208E-03	1.168E-03	1.969E-04	1.782E-03	0.000E+00
1.778	0.6446	3.2809E-01	7.255E-04	5.788E-04	-7.316E-05	9.782E-04	0.000E+00
2.032	0.6250	3.2560E-01	4.042E-04	3.392E-04	-1.107E-04	5.575E-04	0.000E+00
2.286	0.6143	3.2540E-01	2.702E-04	2.512E-04	-8.863E-05	3.910E-04	0.000E+00
2.540	0.6108	3.2252E-01	2.651E-04	2.560E-04	-1.143E-04	3.909E-04	0.000E+00
2.794	0.6111	3.2054E-01	3.382E-04	3.368E-04	-2.078E-04	5.063E-04	0.000E+00
3.048	0.6087	3.2085E-01	2.344E-04	2.358E-04	-1.199E-04	3.527E-04	0.000E+00
3.302	0.6178	3.1669E-01	3.103E-04	2.892E-04	-1.802E-04	4.496E-04	0.000E+00
3.556	0.6766	2.8215E-01	2.387E-03	1.814E-03	-1.959E-03	3.150E-03	0.000E+00
3.810	0.8737	1.1682E-01	9.588E-03	8.304E-03	-8.798E-03	1.342E-02	0.000E+00
4.064	1.0012	5.1460E-03	1.086E-04	1.103E-04	7.036E-06	1.641E-04	0.000E+00
4.318	1.0000	5.2521E-03	1.090E-04	1.137E-04	4.655E-06	1.670E-04	0.000E+00

TABLE 10.- CONTINUED
 $\alpha = 10^\circ$, $x = 7.183$ cm; Obtained 10/7/85-18:49:54
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.8203	-1.8903E-02	4.973E-03	1.215E-03	4.919E-05	4.641E-03	0.000E+00
0.102	0.8667	-1.1509E-02	4.278E-03	1.288E-03	3.561E-04	4.174E-03	0.000E+00
0.152	0.9024	2.3269E-03	3.646E-03	1.376E-03	4.553E-04	3.766E-03	0.000E+00
0.203	0.9254	1.3763E-02	3.226E-03	1.369E-03	5.426E-04	3.446E-03	0.000E+00
0.254	0.9403	2.3783E-02	3.060E-03	1.485E-03	6.054E-04	3.409E-03	0.000E+00
0.317	0.9478	3.2755E-02	3.095E-03	1.531E-03	6.613E-04	3.469E-03	0.000E+00
0.381	0.9550	4.1106E-02	2.795E-03	1.568E-03	5.672E-04	3.273E-03	0.000E+00
0.508	0.9537	5.4154E-02	2.779E-03	1.692E-03	5.453E-04	3.354E-03	0.000E+00
0.635	0.9488	7.0427E-02	2.888E-03	1.838E-03	4.148E-04	3.544E-03	0.000E+00
0.762	0.9485	9.4130E-02	2.625E-03	1.719E-03	4.253E-04	3.258E-03	0.000E+00
0.889	0.9397	1.2189E-01	2.340E-03	1.624E-03	4.878E-04	2.973E-03	0.000E+00
1.016	0.9325	1.4939E-01	1.861E-03	1.343E-03	4.999E-04	2.402E-03	0.000E+00
1.143	0.9200	1.7331E-01	1.608E-03	1.212E-03	4.042E-04	2.115E-03	0.000E+00
1.270	0.9082	1.9589E-01	1.226E-03	1.049E-03	3.024E-04	1.706E-03	0.000E+00
1.397	0.8936	2.1450E-01	9.572E-04	9.257E-04	2.064E-04	1.412E-03	0.000E+00
1.524	0.8737	2.2900E-01	8.802E-04	9.365E-04	2.460E-04	1.363E-03	0.000E+00
1.778	0.8233	2.4767E-01	9.043E-04	9.753E-04	2.877E-04	1.410E-03	0.000E+00
2.032	0.7735	2.5716E-01	5.367E-04	5.512E-04	7.886E-05	8.159E-04	0.000E+00
2.286	0.7434	2.6514E-01	2.728E-04	2.911E-04	-3.467E-05	4.229E-04	0.000E+00
2.540	0.7249	2.7536E-01	2.275E-04	2.193E-04	-3.373E-05	3.351E-04	0.000E+00
2.794	0.7098	2.7946E-01	2.245E-04	2.338E-04	-8.473E-05	3.437E-04	0.000E+00
3.048	0.6992	2.8498E-01	1.871E-04	1.878E-04	-6.696E-05	2.811E-04	0.000E+00
3.302	0.6931	2.9353E-01	1.713E-04	1.699E-04	-5.205E-05	2.558E-04	0.000E+00
3.556	0.6875	2.9958E-01	1.495E-04	1.619E-04	-4.690E-05	2.335E-04	0.000E+00
3.810	0.6862	3.0646E-01	1.609E-04	1.694E-04	-6.198E-05	2.477E-04	0.000E+00
4.064	0.6890	3.0957E-01	1.570E-04	1.733E-04	-5.845E-05	2.478E-04	0.000E+00
4.318	0.6930	3.1142E-01	1.966E-04	1.932E-04	-9.879E-05	2.923E-04	0.000E+00
4.572	0.7369	2.7613E-01	1.850E-03	1.845E-03	-1.745E-03	2.771E-03	0.000E+00
4.826	0.9457	6.3464E-02	5.474E-03	5.601E-03	-5.431E-03	8.306E-03	0.000E+00
5.080	1.0002	5.4934E-03	9.636E-05	1.030E-04	5.485E-06	1.495E-04	0.000E+00
5.334	1.0000	4.6503E-03	9.769E-05	1.014E-04	9.900E-06	1.493E-04	0.000E+00

TABLE 10.- CONTINUED

 $\alpha = 10^\circ$, $x = 8.183$ cm; Obtained 10/7/85-18:03:02 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	U _{MEAN}	V _{MEAN}	U ₂	V ₂	UV	U ₂ V ₂	GMINUS
0.051	0.8544	-7.7568E-03	4.531E-03	1.171E-03	-2.504E-04	4.276E-03	0.000E+00
0.102	0.8911	-8.6489E-03	3.696E-03	1.138E-03	2.475E-05	3.625E-03	0.000E+00
0.152	0.9166	-3.7755E-03	3.159E-03	1.185E-03	2.214E-04	3.258E-03	0.000E+00
0.203	0.9375	3.0471E-03	2.773E-03	1.208E-03	3.816E-04	2.986E-03	0.000E+00
0.254	0.9529	1.2860E-02	2.520E-03	1.260E-03	4.177E-04	2.835E-03	0.000E+00
0.317	0.9645	1.8353E-02	2.316E-03	1.250E-03	5.591E-04	2.674E-03	0.000E+00
0.381	0.9701	2.4739E-02	2.248E-03	1.308E-03	5.516E-04	2.667E-03	0.000E+00
0.508	0.9755	3.3234E-02	2.059E-03	1.217E-03	5.170E-04	2.457E-03	0.000E+00
0.635	0.9786	3.5710E-02	2.050E-03	1.213E-03	4.862E-04	2.448E-03	0.000E+00
0.762	0.9780	4.3174E-02	1.939E-03	1.218E-03	3.933E-04	2.368E-03	0.000E+00
0.889	0.9783	4.7842E-02	1.886E-03	1.171E-03	3.212E-04	2.293E-03	0.000E+00
1.016	0.9780	5.9115E-02	1.872E-03	1.157E-03	2.600E-04	2.272E-03	0.000E+00
1.143	0.9730	7.2433E-02	1.697E-03	1.072E-03	2.685E-04	2.076E-03	0.000E+00
1.270	0.9705	9.0390E-02	1.451E-03	9.911E-04	1.701E-04	1.831E-03	0.000E+00
1.397	0.9616	1.0685E-01	1.188E-03	8.587E-04	1.333E-04	1.535E-03	0.000E+00
1.524	0.9513	1.2274E-01	9.882E-04	8.081E-04	1.740E-04	1.347E-03	0.000E+00
1.778	0.9213	1.5247E-01	8.005E-04	7.851E-04	2.150E-04	1.189E-03	0.000E+00
2.032	0.8820	1.7201E-01	7.567E-04	6.887E-04	2.671E-04	1.084E-03	0.000E+00
2.286	0.8447	1.8963E-01	4.804E-04	4.779E-04	1.015E-04	7.187E-04	0.000E+00
2.540	0.8188	2.0206E-01	2.657E-04	2.871E-04	-1.505E-05	4.146E-04	0.000E+00
2.794	0.7992	2.1749E-01	1.972E-04	2.030E-04	-1.669E-05	3.001E-04	0.000E+00
3.048	0.7837	2.3154E-01	1.533E-04	1.597E-04	-1.605E-05	2.347E-04	0.000E+00
3.302	0.7723	2.4452E-01	1.373E-04	1.404E-04	-1.803E-05	2.082E-04	0.000E+00
3.556	0.7638	2.5457E-01	1.305E-04	1.370E-04	-1.811E-05	2.006E-04	0.000E+00
3.810	0.7529	2.5938E-01	1.264E-04	1.278E-04	-2.396E-05	1.907E-04	0.000E+00
4.064	0.7456	2.6622E-01	1.420E-04	1.496E-04	-4.514E-05	2.186E-04	0.000E+00
4.318	0.7429	2.7659E-01	1.176E-04	1.262E-04	-2.454E-05	1.829E-04	0.000E+00
4.572	0.7413	2.8453E-01	1.204E-04	1.300E-04	-2.230E-05	1.878E-04	0.000E+00
4.826	0.7418	2.9026E-01	1.069E-04	1.161E-04	-1.434E-05	1.673E-04	0.000E+00
5.080	0.7443	2.9429E-01	1.381E-04	1.473E-04	-4.268E-05	2.141E-04	0.000E+00
5.334	0.7479	2.9250E-01	2.270E-04	2.500E-04	-1.411E-04	3.578E-04	0.000E+00
5.588	0.8174	2.1361E-01	2.312E-03	2.886E-03	-2.477E-03	3.899E-03	0.000E+00
5.842	0.9993	9.4941E-03	2.121E-04	2.481E-04	-1.217E-04	3.452E-04	0.000E+00
6.096	0.9999	9.2083E-03	1.010E-04	1.035E-04	8.124E-06	1.534E-04	0.000E+00
6.350	0.9999	1.1903E-02	9.868E-05	1.018E-04	1.161E-05	1.504E-04	0.000E+00

TABLE 10.- CONCLUDED
 $\alpha = 10^\circ$, $x = 9.183$ cm; Obtained 10/7/85-22:35:43
 $P_T = 1.7$ atm; $T_T = 271.0$ K; $u_\infty = 578.0$ m/s

Y (CM)	UMEAN	VMEAN	U2	V2	UV	U2V2	GMINUS
0.051	0.8814	-3.4346E-03	4.047E-03	1.161E-03	-5.046E-04	3.906E-03	0.000E+00
0.102	0.9088	-3.8926E-03	3.104E-03	1.163E-03	-1.358E-04	3.201E-03	0.000E+00
0.152	0.9283	-9.6031E-04	2.682E-03	1.144E-03	5.210E-05	2.870E-03	0.000E+00
0.203	0.9445	2.8795E-03	2.357E-03	1.186E-03	1.694E-04	2.657E-03	0.000E+00
0.254	0.9581	8.8026E-03	2.121E-03	1.195E-03	2.770E-04	2.487E-03	0.000E+00
0.317	0.9674	1.2352E-02	2.005E-03	1.205E-03	3.885E-04	2.407E-03	0.000E+00
0.381	0.9730	1.9232E-02	1.813E-03	1.182E-03	4.053E-04	2.246E-03	0.000E+00
0.508	0.9789	2.2841E-02	1.674E-03	1.176E-03	4.486E-04	2.137E-03	0.000E+00
0.635	0.9838	2.6897E-02	1.600E-03	1.074E-03	3.835E-04	2.005E-03	0.000E+00
0.762	0.9836	3.0392E-02	1.584E-03	1.068E-03	3.807E-04	1.989E-03	0.000E+00
0.889	0.9842	3.0585E-02	1.587E-03	1.025E-03	2.751E-04	1.959E-03	0.000E+00
1.016	0.9878	3.4030E-02	1.468E-03	9.626E-04	1.809E-04	1.823E-03	0.000E+00
1.143	0.9870	3.7788E-02	1.434E-03	9.557E-04	7.077E-05	1.792E-03	0.000E+00
1.270	0.9884	4.0125E-02	1.244E-03	8.859E-04	9.451E-05	1.598E-03	0.000E+00
1.397	0.9848	4.8073E-02	1.233E-03	8.993E-04	-1.509E-05	1.599E-03	0.000E+00
1.524	0.9800	5.7102E-02	1.147E-03	8.537E-04	-1.364E-05	1.501E-03	0.000E+00
1.778	0.9611	8.0937E-02	9.153E-04	8.277E-04	6.921E-05	1.307E-03	0.000E+00
2.032	0.9343	1.0590E-01	7.854E-04	7.200E-04	1.703E-04	1.129E-03	0.000E+00
2.286	0.8982	1.2255E-01	5.633E-04	5.663E-04	1.012E-04	8.472E-04	0.000E+00
2.540	0.8742	1.4218E-01	3.375E-04	3.602E-04	-2.142E-06	5.233E-04	0.000E+00
3.048	0.8404	1.7917E-01	1.911E-04	1.930E-04	-3.473E-05	2.880E-04	0.000E+00
3.556	0.8162	2.0337E-01	1.616E-04	1.679E-04	-3.569E-05	2.471E-04	0.000E+00
4.064	0.7988	2.2252E-01	1.362E-04	1.421E-04	-3.722E-05	2.088E-04	0.000E+00
4.572	0.7858	2.4330E-01	1.285E-04	1.321E-04	-3.615E-05	1.955E-04	0.000E+00
5.080	0.7818	2.6091E-01	1.547E-04	1.624E-04	-6.046E-05	2.378E-04	0.000E+00
5.334	0.7802	2.6854E-01	1.300E-04	1.314E-04	-3.170E-05	1.961E-04	0.000E+00
5.588	0.7797	2.7481E-01	2.239E-04	2.278E-04	-1.229E-04	3.388E-04	0.000E+00
5.842	0.7773	2.8288E-01	1.527E-04	1.596E-04	-5.176E-05	2.342E-04	0.000E+00
6.096	0.7818	2.7985E-01	2.415E-04	2.659E-04	-1.479E-04	3.805E-04	0.000E+00
6.350	0.8287	2.2393E-01	1.533E-03	2.049E-03	-1.655E-03	2.686E-03	0.000E+00
6.604	1.0014	9.9011E-03	1.611E-04	1.883E-04	-5.534E-05	2.621E-04	0.000E+00
6.858	1.0005	8.0844E-03	1.094E-04	1.057E-04	-2.052E-06	1.613E-04	0.000E+00
7.112	1.0000	5.2608E-03	1.085E-04	1.108E-04	-1.945E-06	1.645E-04	0.000E+00

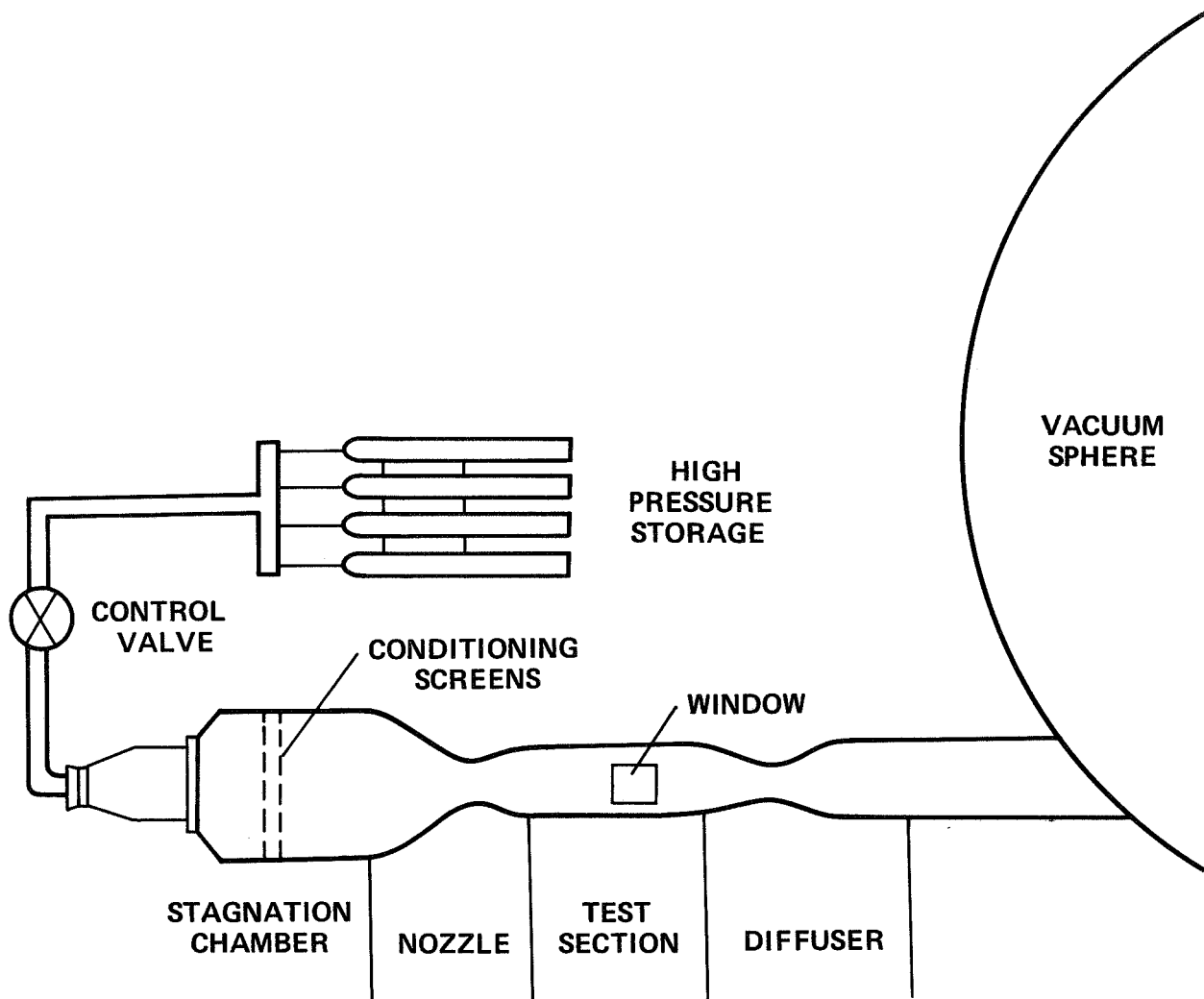


Figure 1.- High Reynolds Number Facility—Channel I.

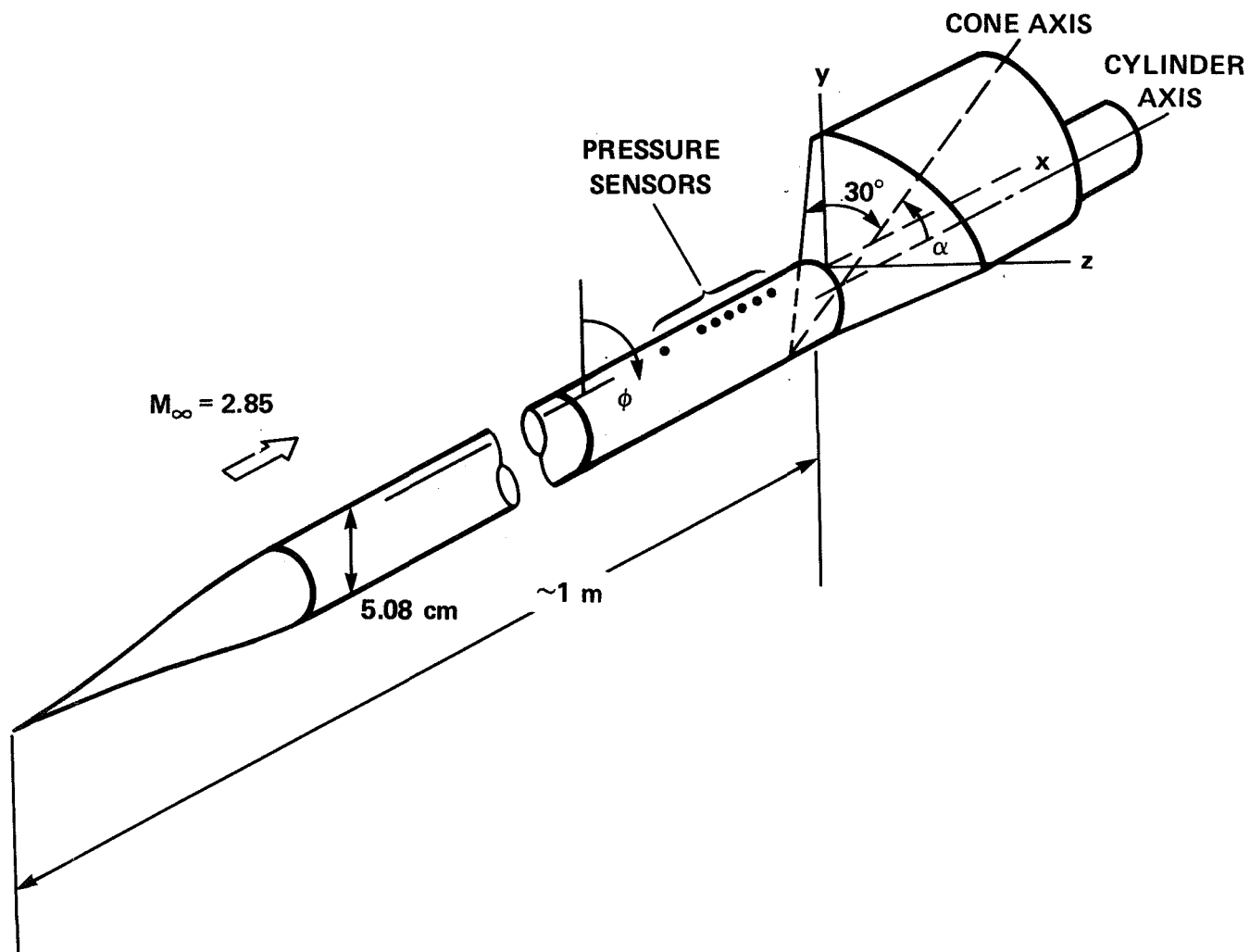


Figure 2.- General model configuration.

α = FLARE INCLINATION ANGLE

$\bar{\alpha}$ = STREAMWISE COMPRESSION
ANGLE in $\phi = 0^\circ$; $\bar{\alpha} = \alpha + 30^\circ$

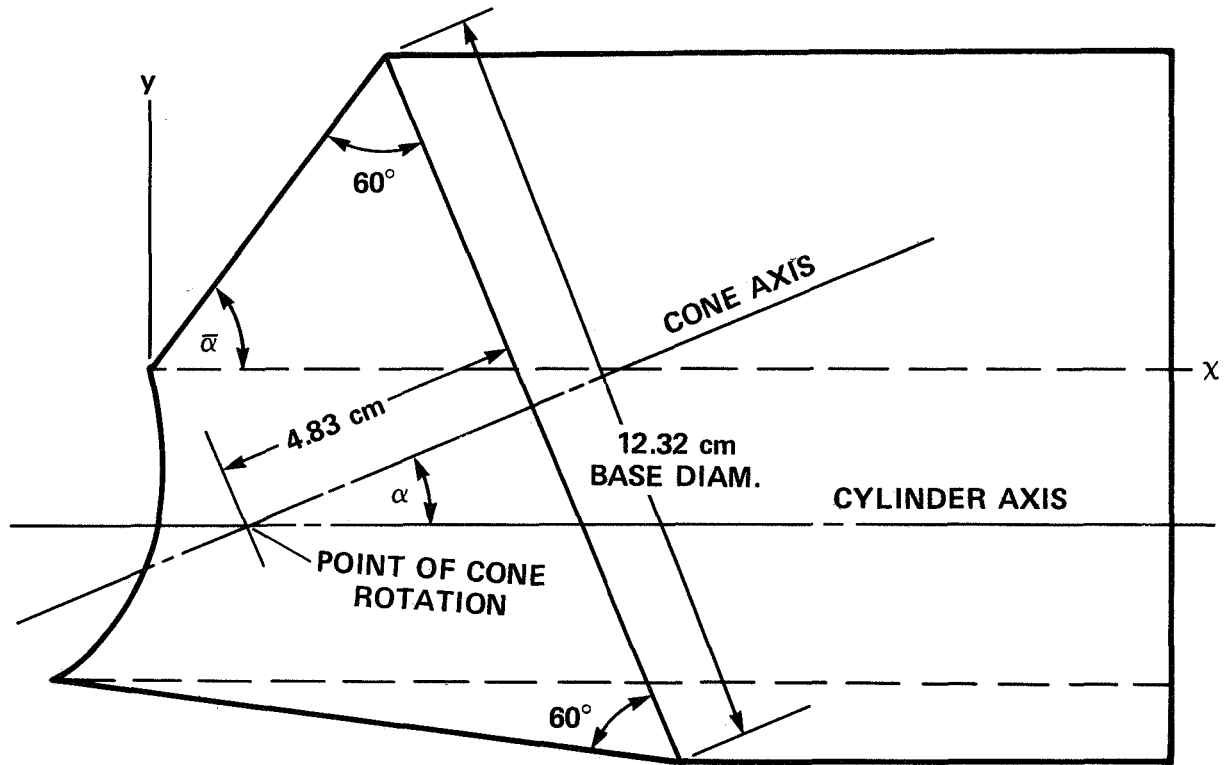


Figure 3.- Flare-afterbody detail.

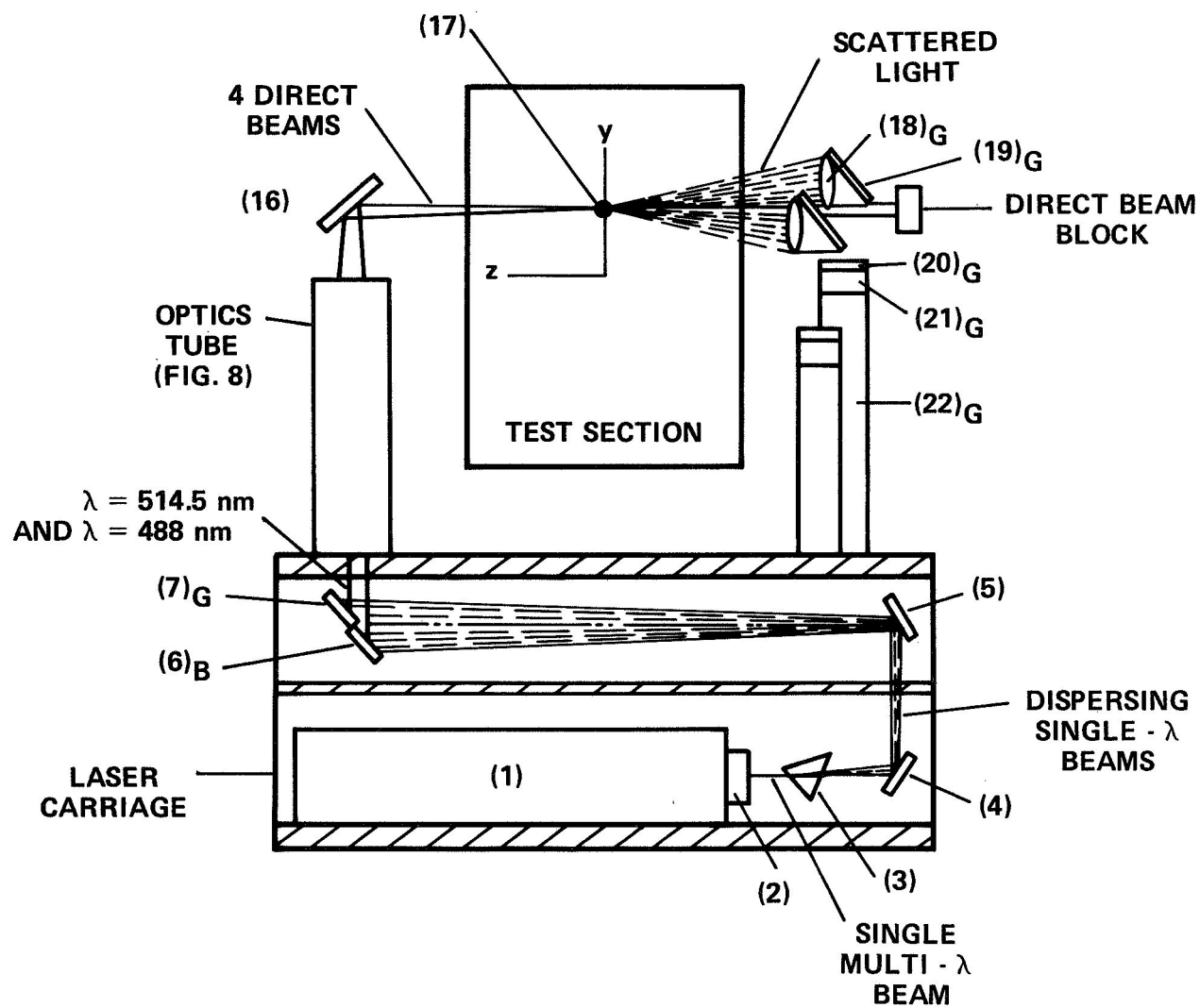


Figure 4.- Two-component LDV system.

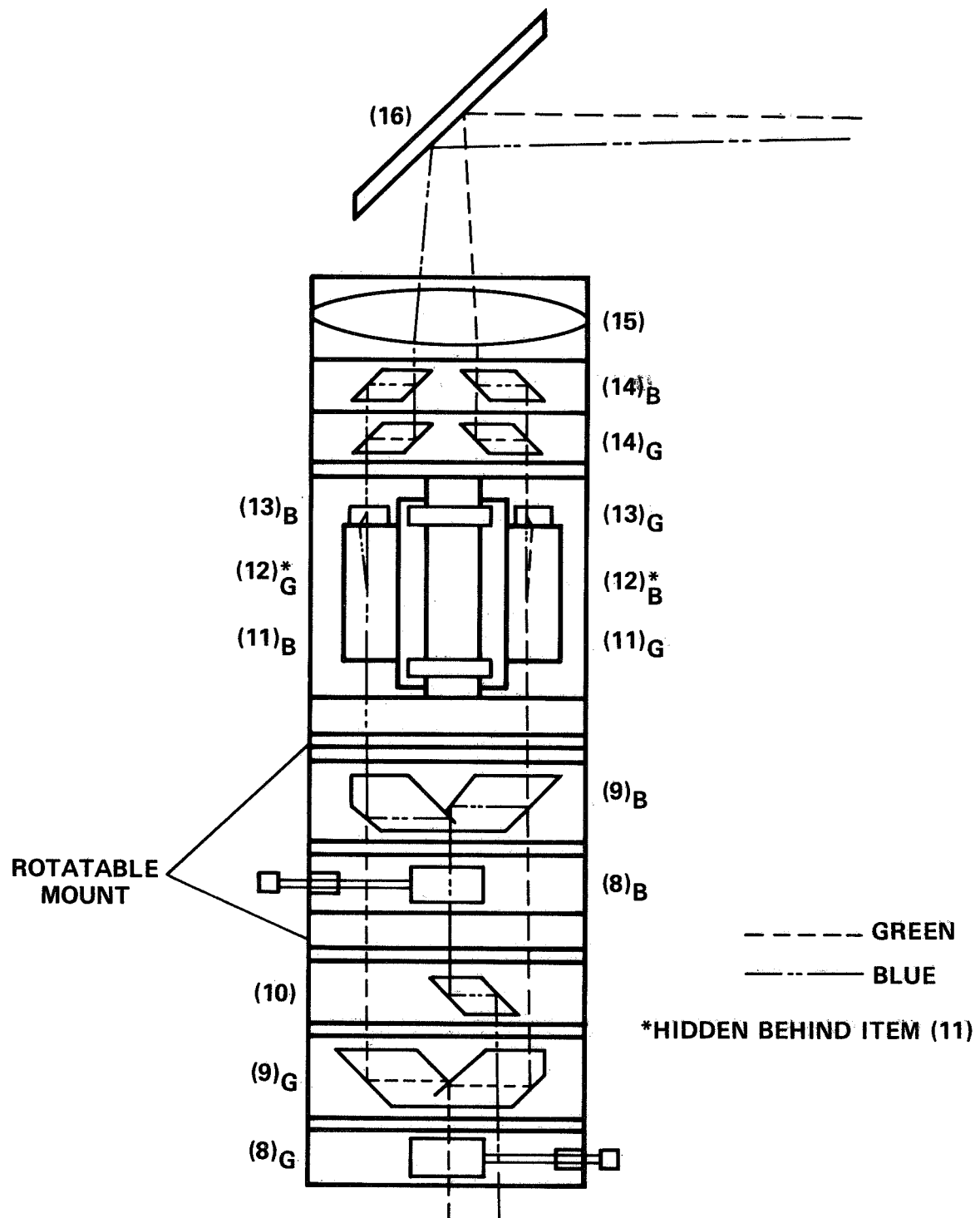


Figure 5.- LDV optics tube.

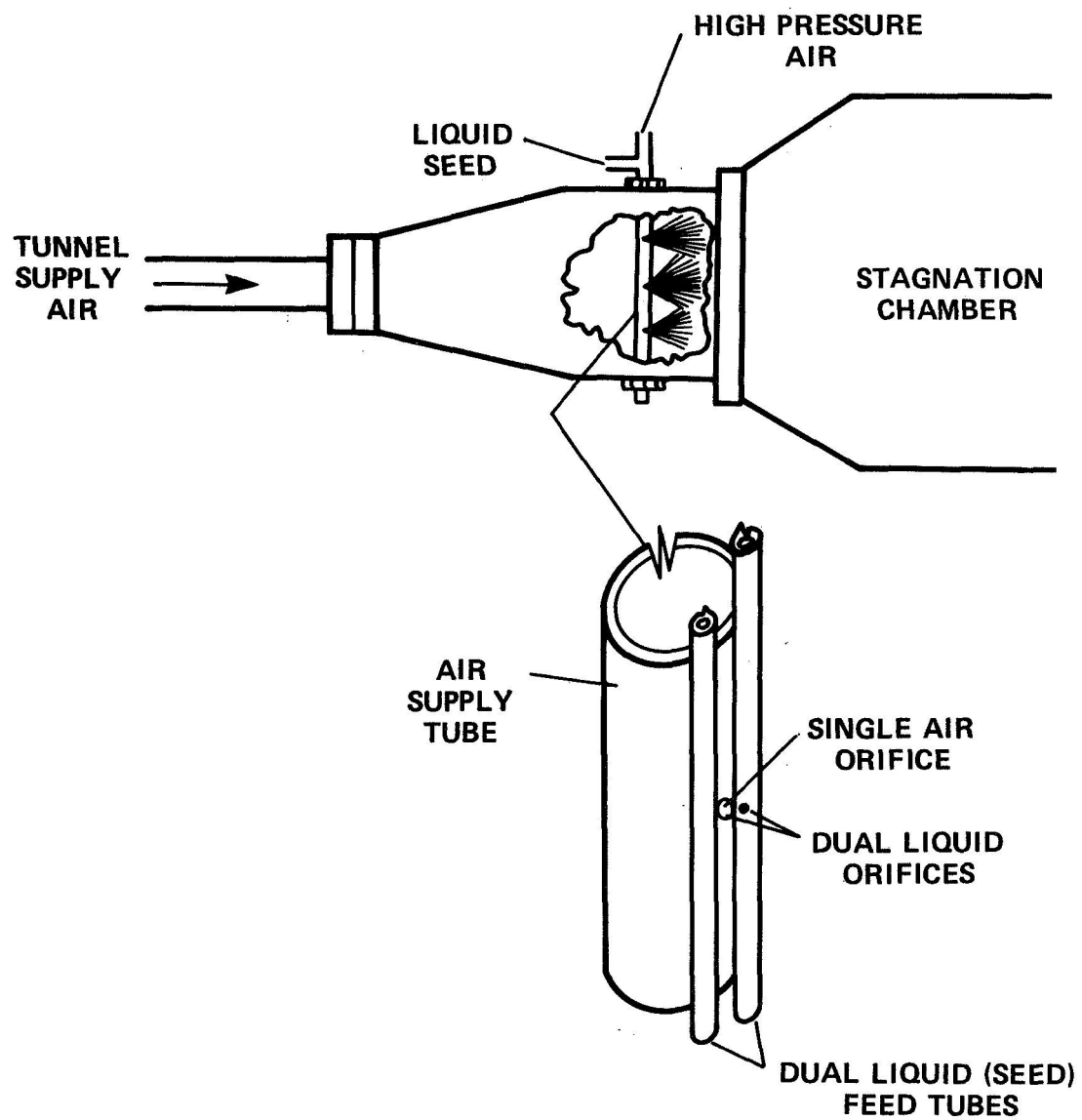


Figure 6.- LDV seeder rod.

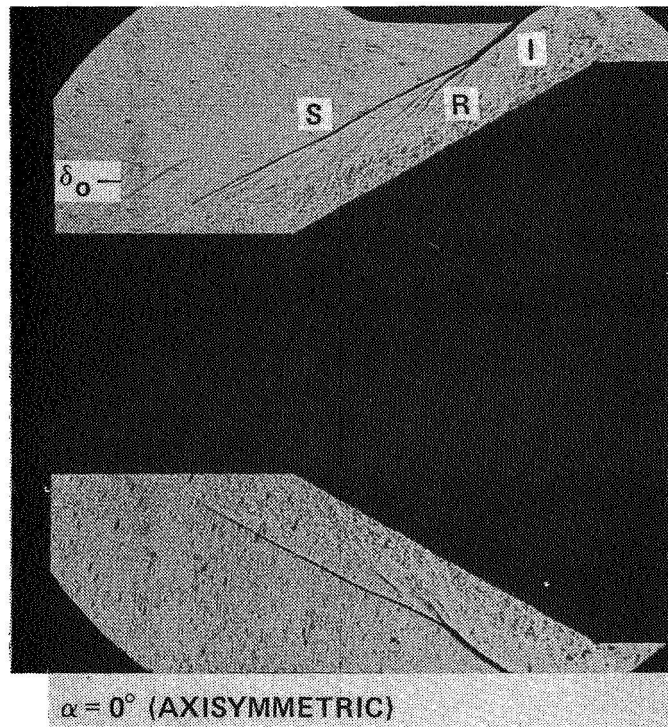


Figure 7.- Shock interaction shadowgraph, $\alpha = 0$.

ORIGINAL PAGE IS
OF POOR QUALITY.

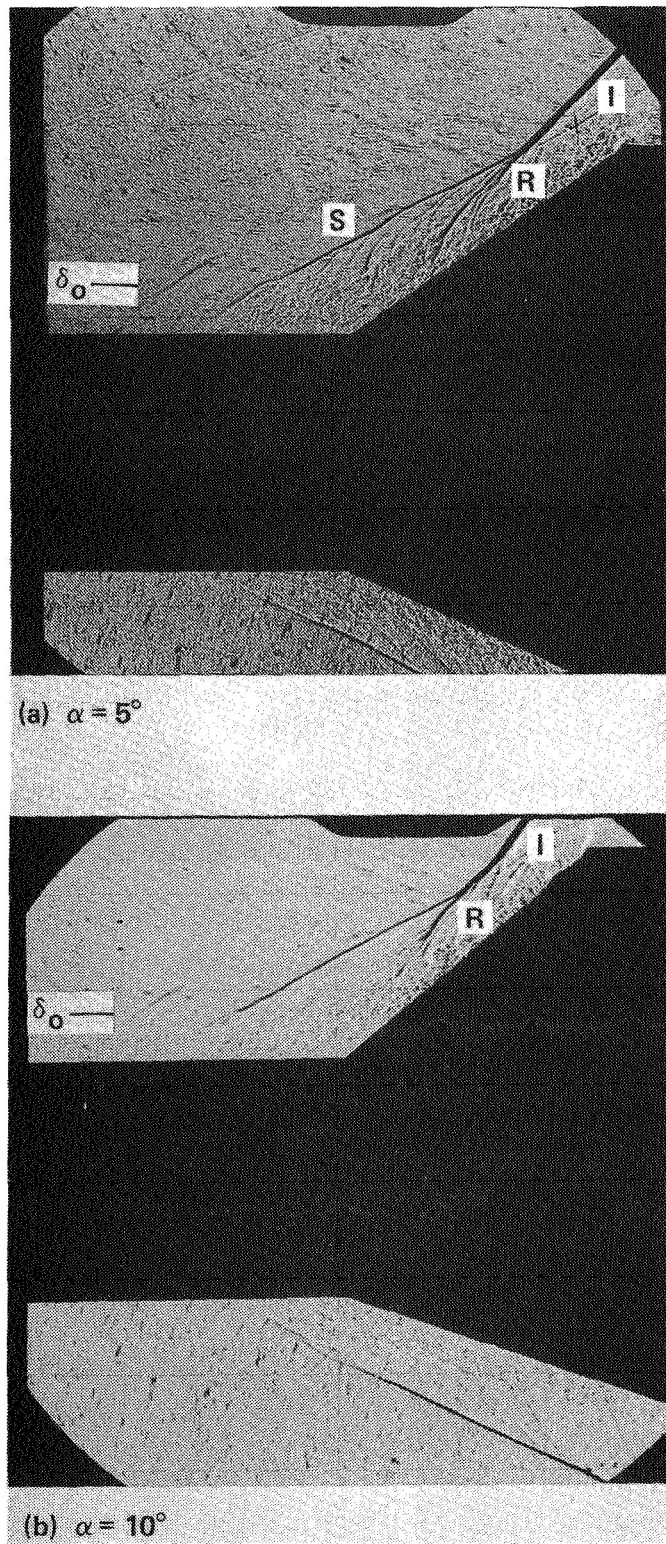


Figure 8.- Shock interaction shadowgraph, $\alpha = 5, 10$.

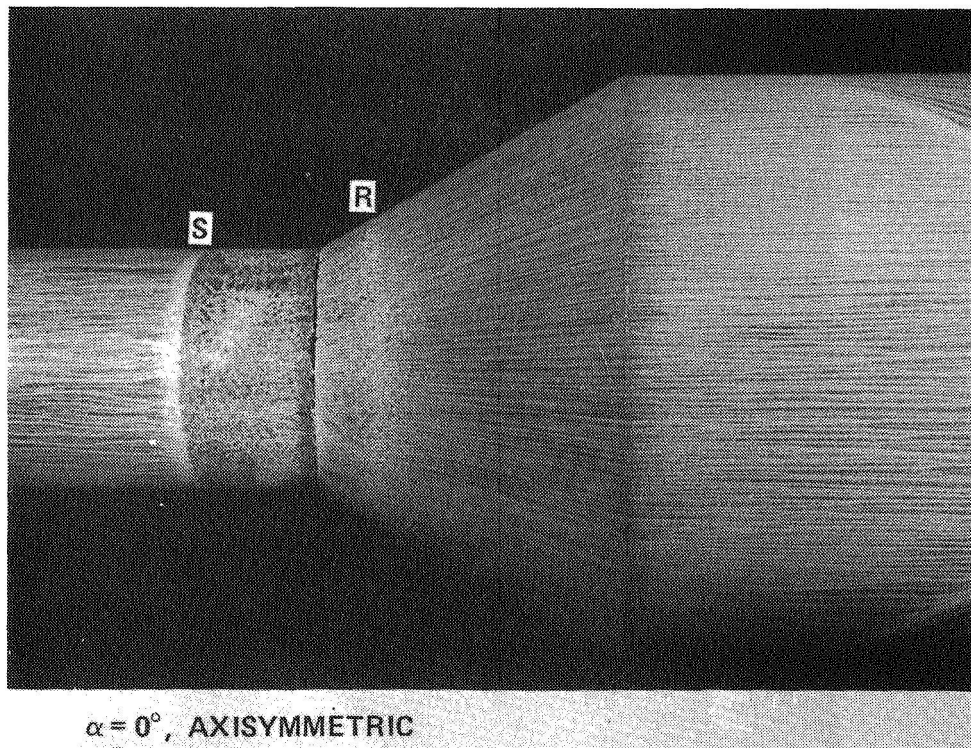


Figure 9.- Surface oil flow, $\alpha = 0$.

ORIGINAL PAGE IS
OF POOR QUALITY

ORIGINAL PAGE IS
OF POOR QUALITY

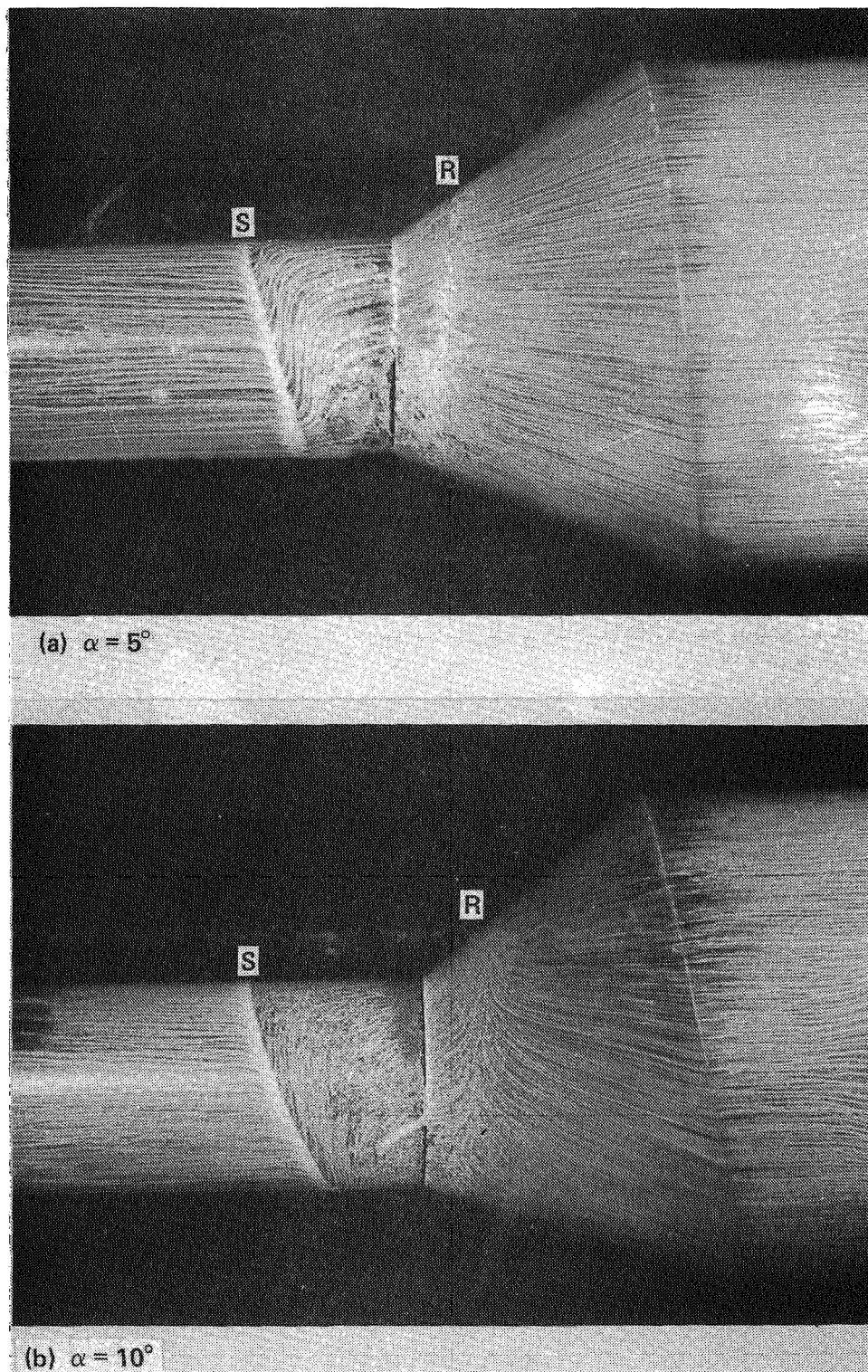


Figure 10.- Surface oil flow, $\alpha = 5, 10$.

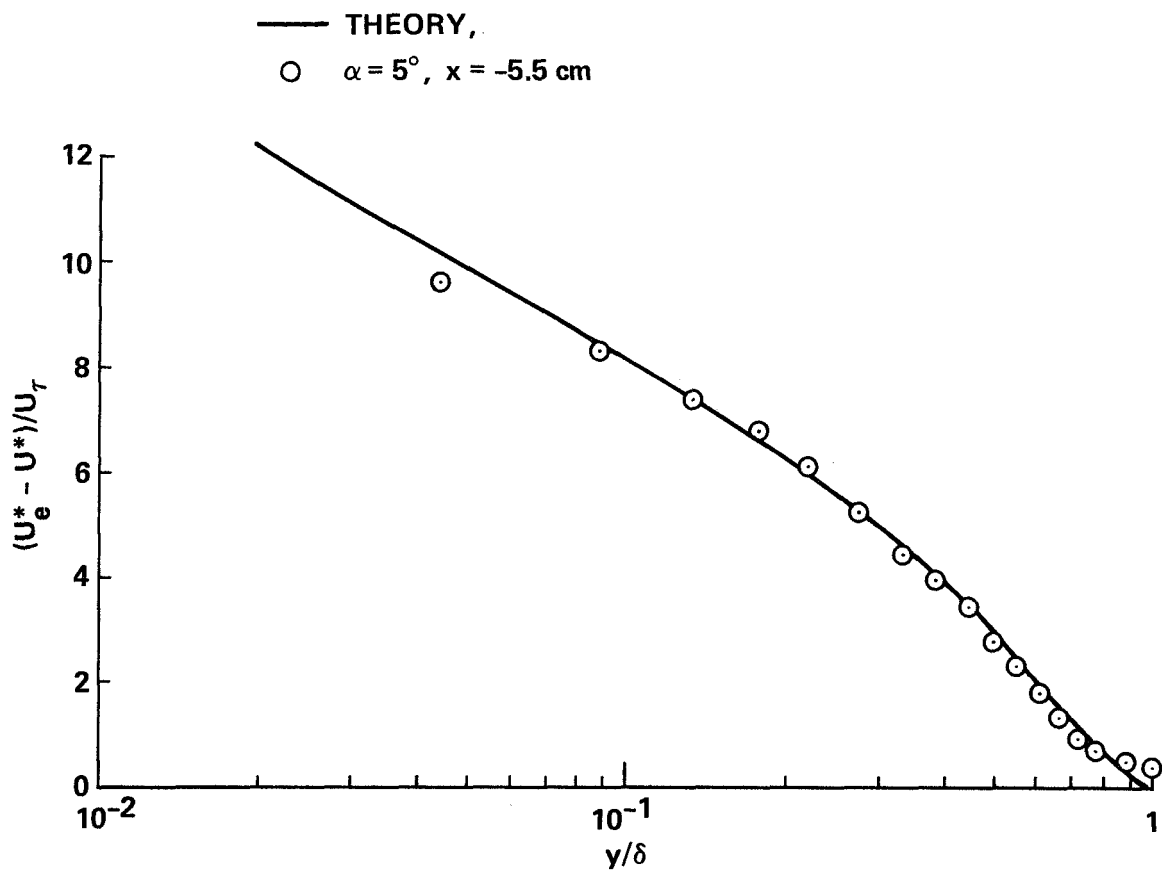


Figure 11.- Data vs. Coles' compressible wall-wake law.

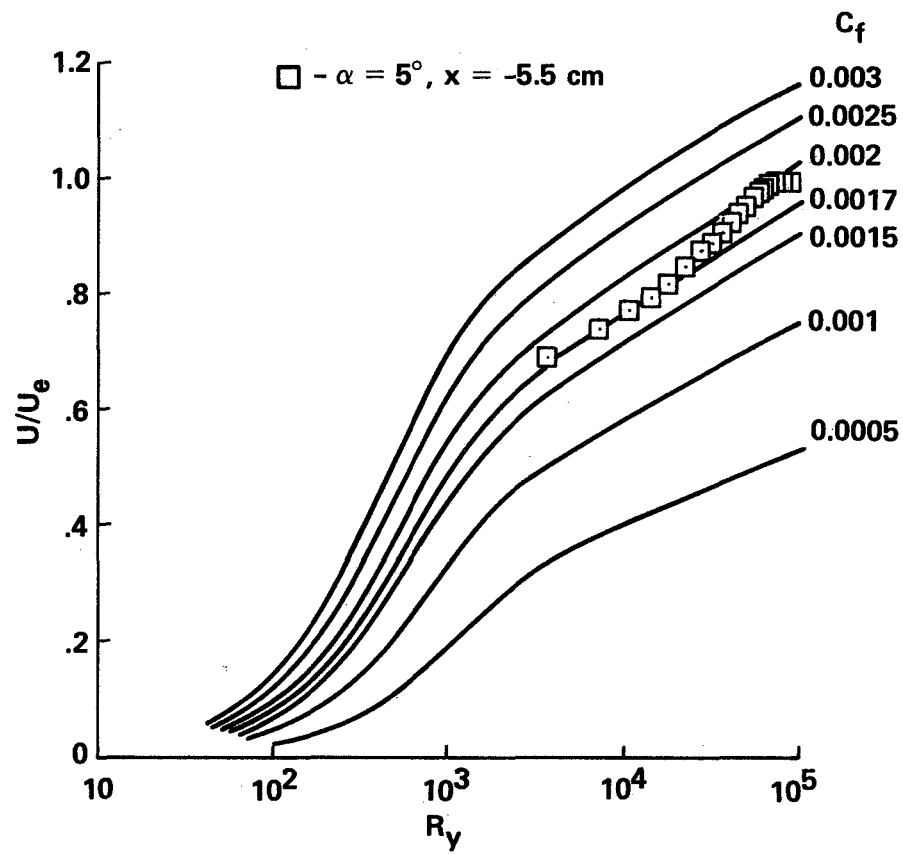


Figure 12.- Experimental determination of skin friction coefficient.

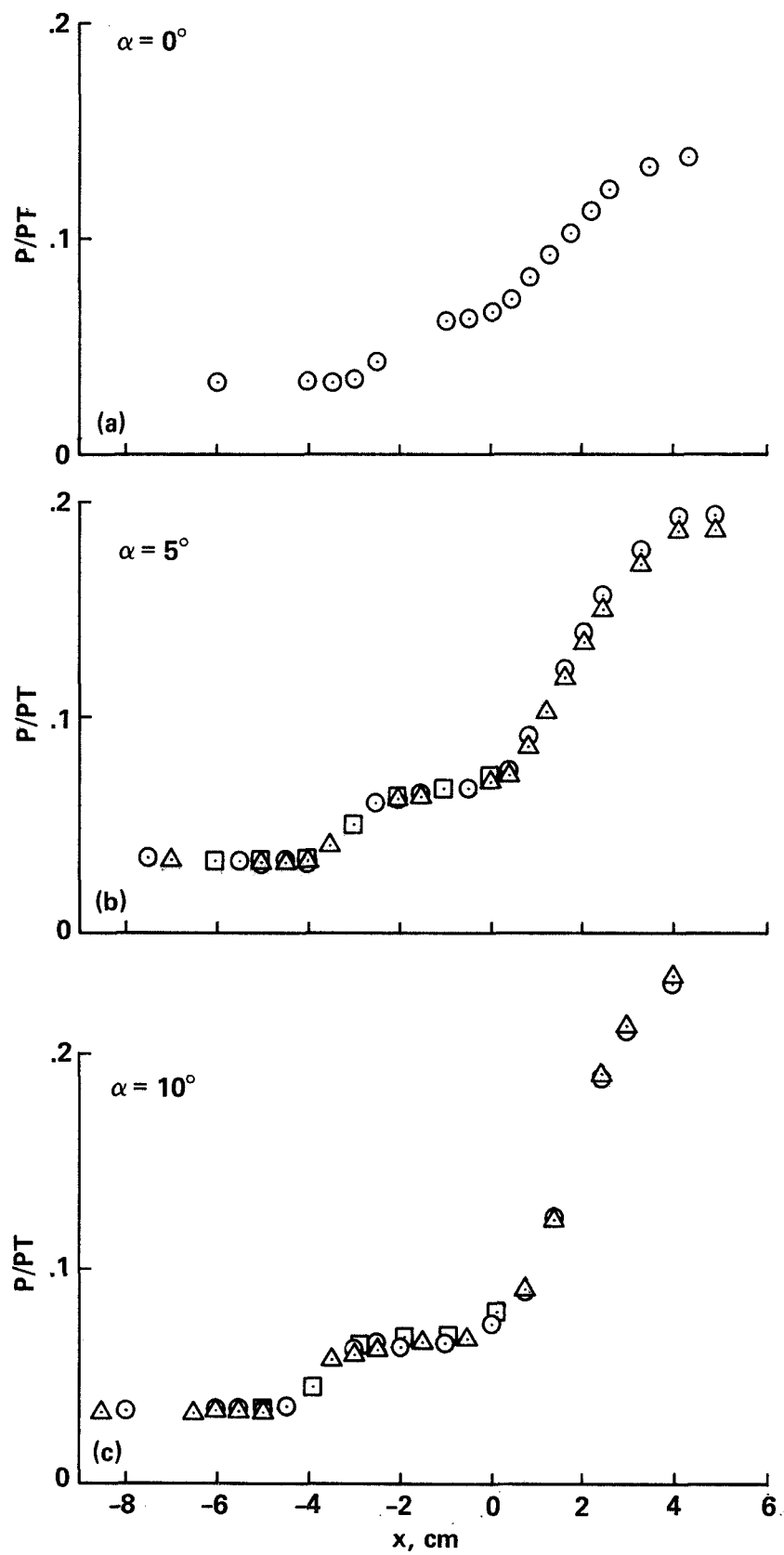


Figure 13.- Pressure vs. x , $\alpha = 0, 5, 10$.

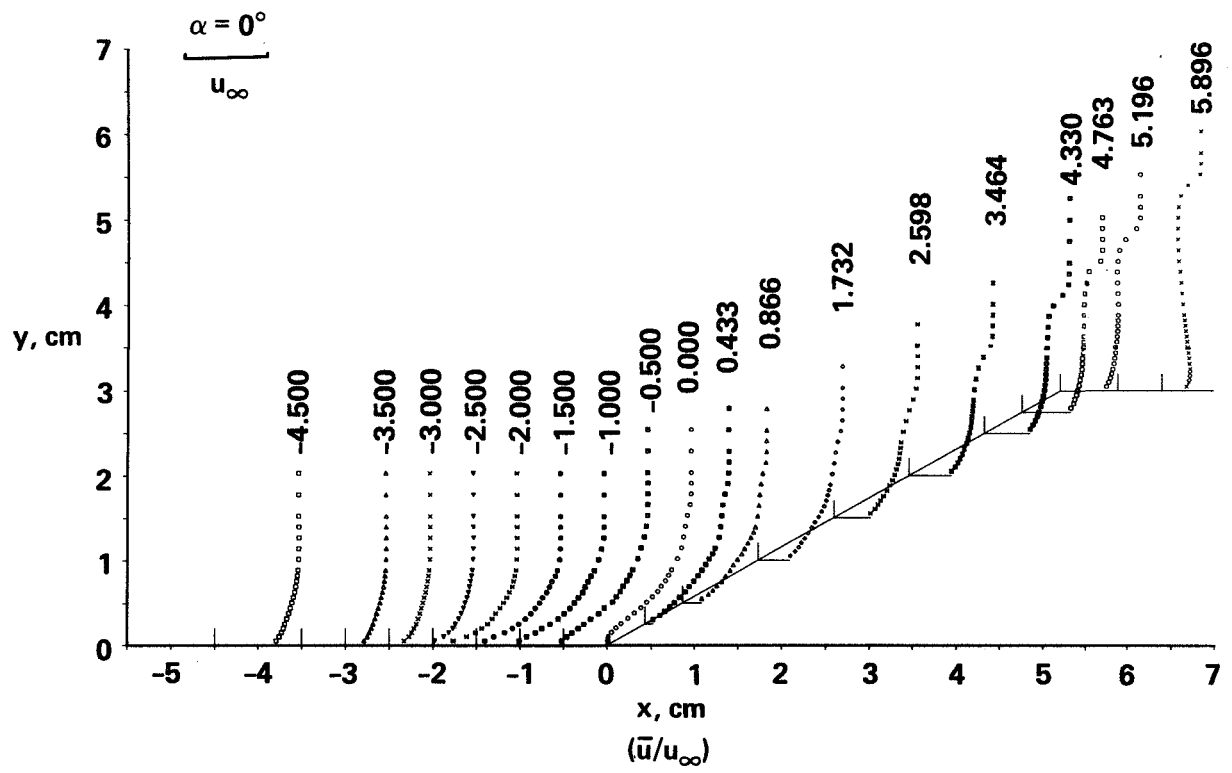


Figure 14.- Streamwise velocity profiles, $\alpha = 0$.

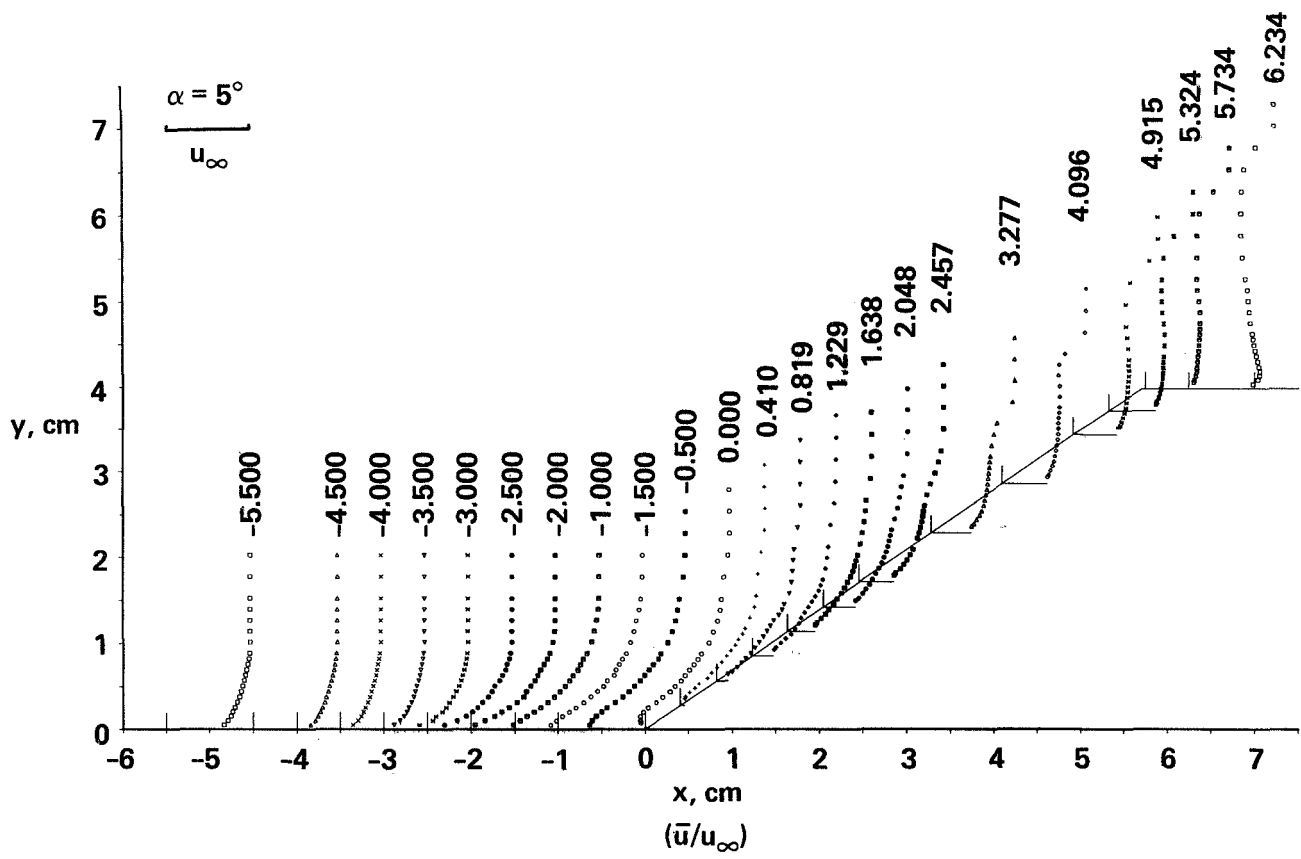


Figure 15.- Streamwise velocity profiles, $\alpha = 5^\circ$.

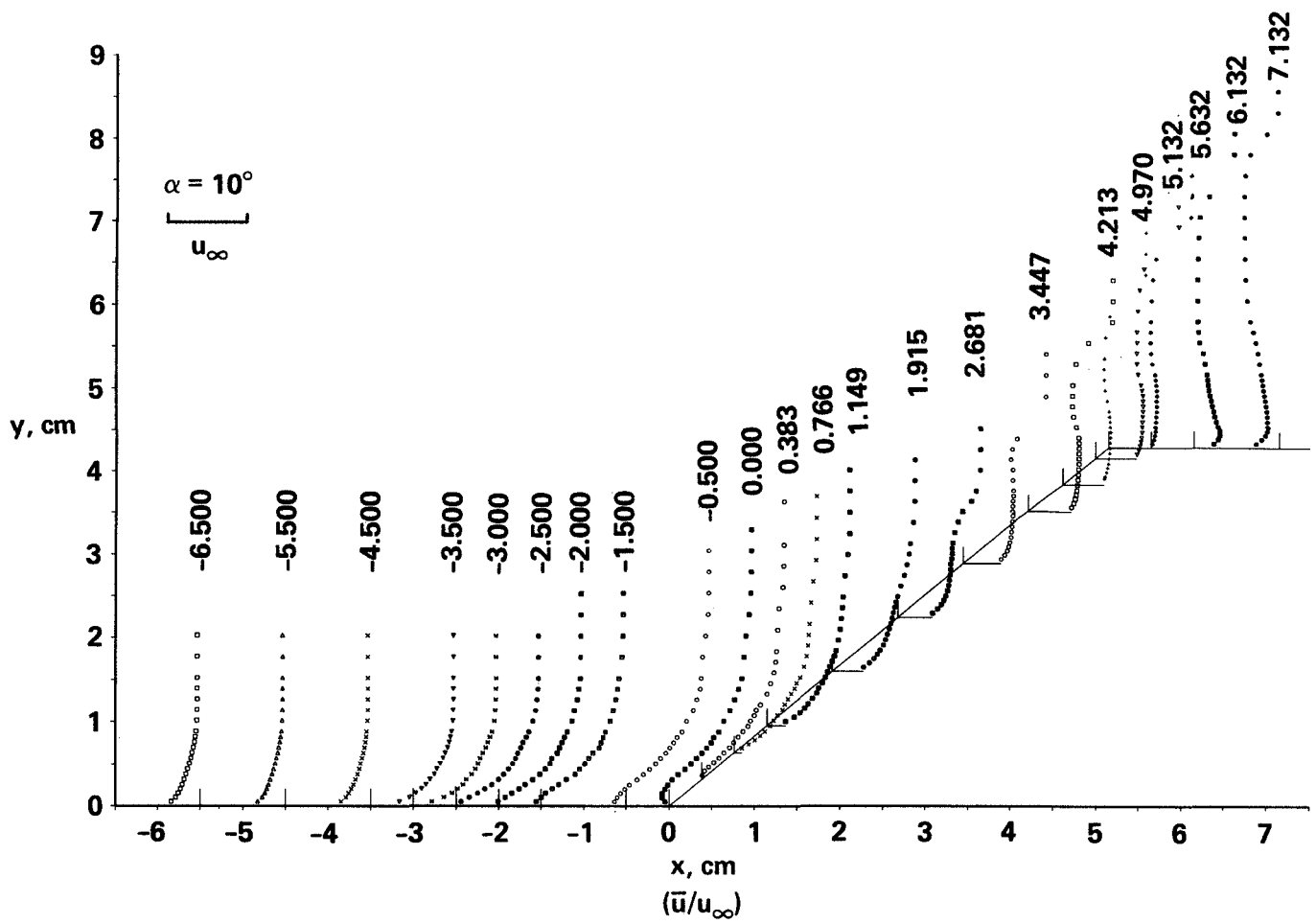


Figure 16.- Streamwise velocity profiles, $\alpha = 10^\circ$.

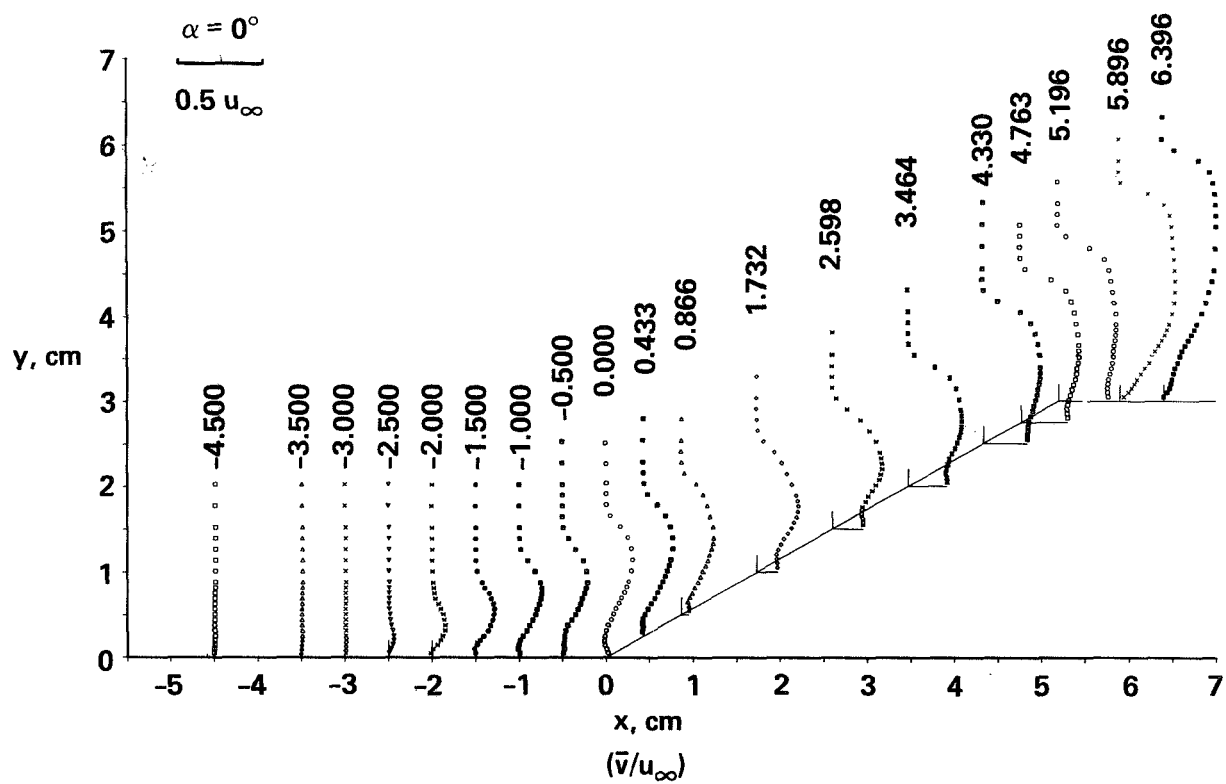


Figure 17.- Vertical velocity profiles, $\alpha = 0$.

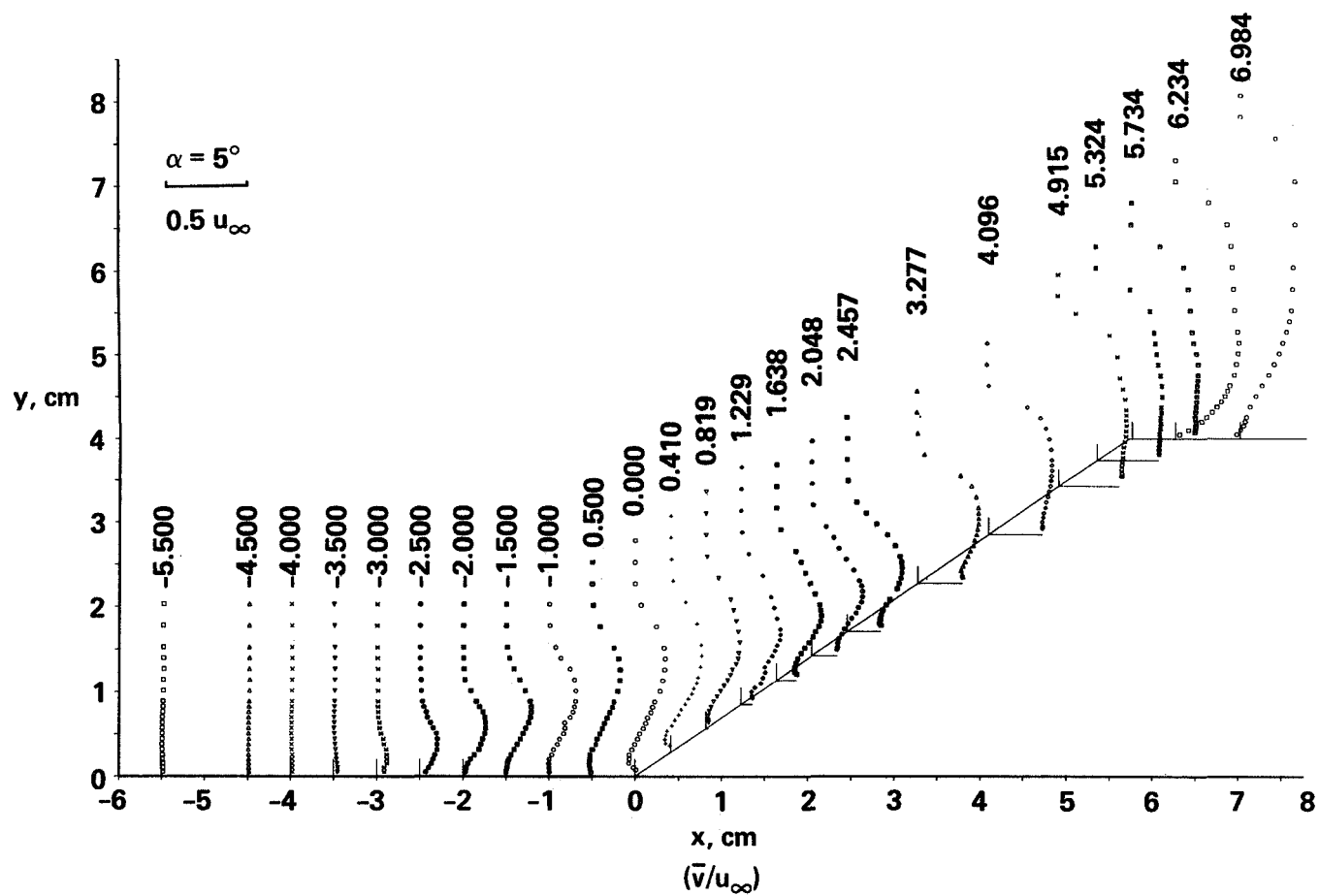


Figure 18.- Vertical velocity profiles, $\alpha = 5$.

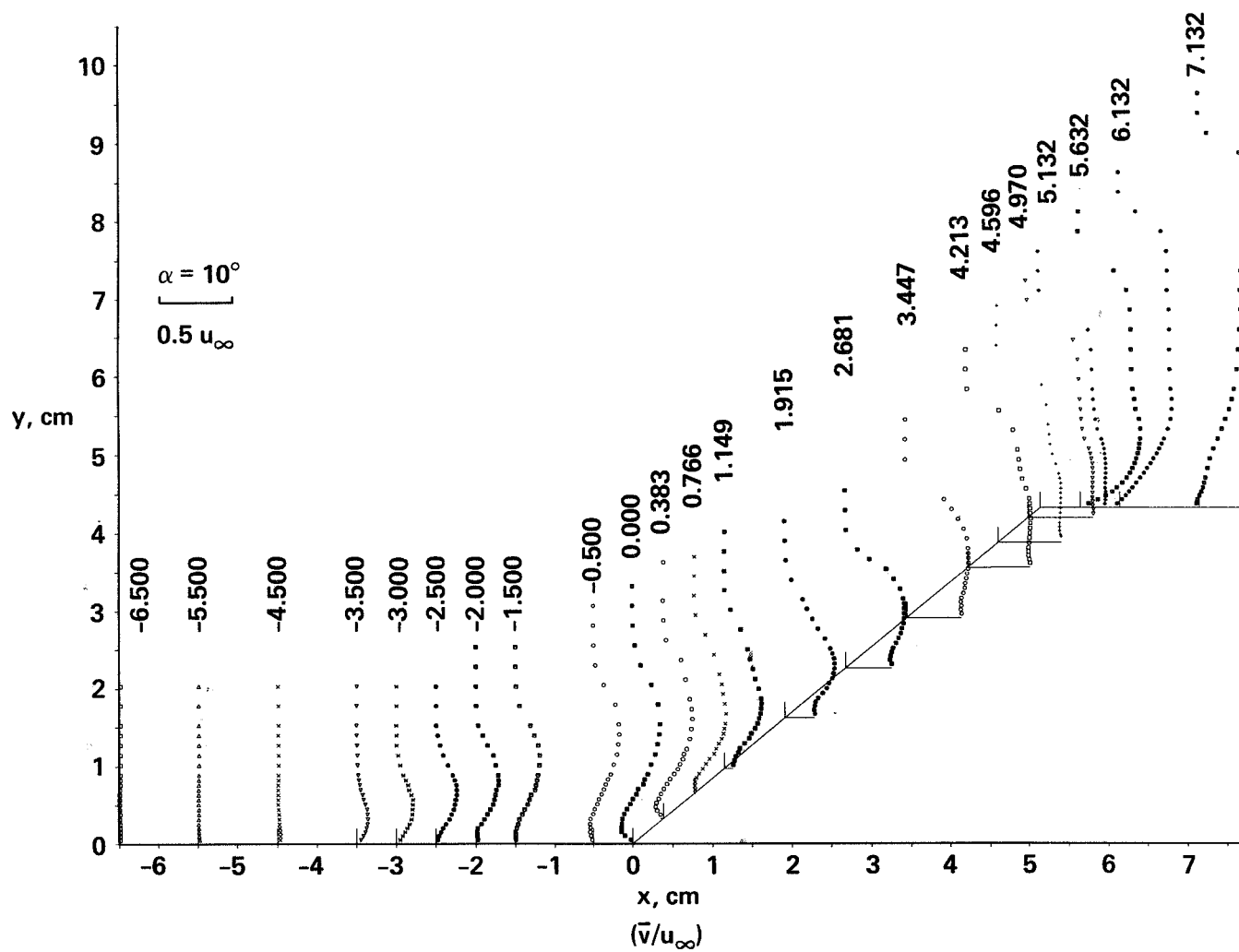


Figure 19.- Vertical velocity profiles, $\alpha = 10^\circ$.

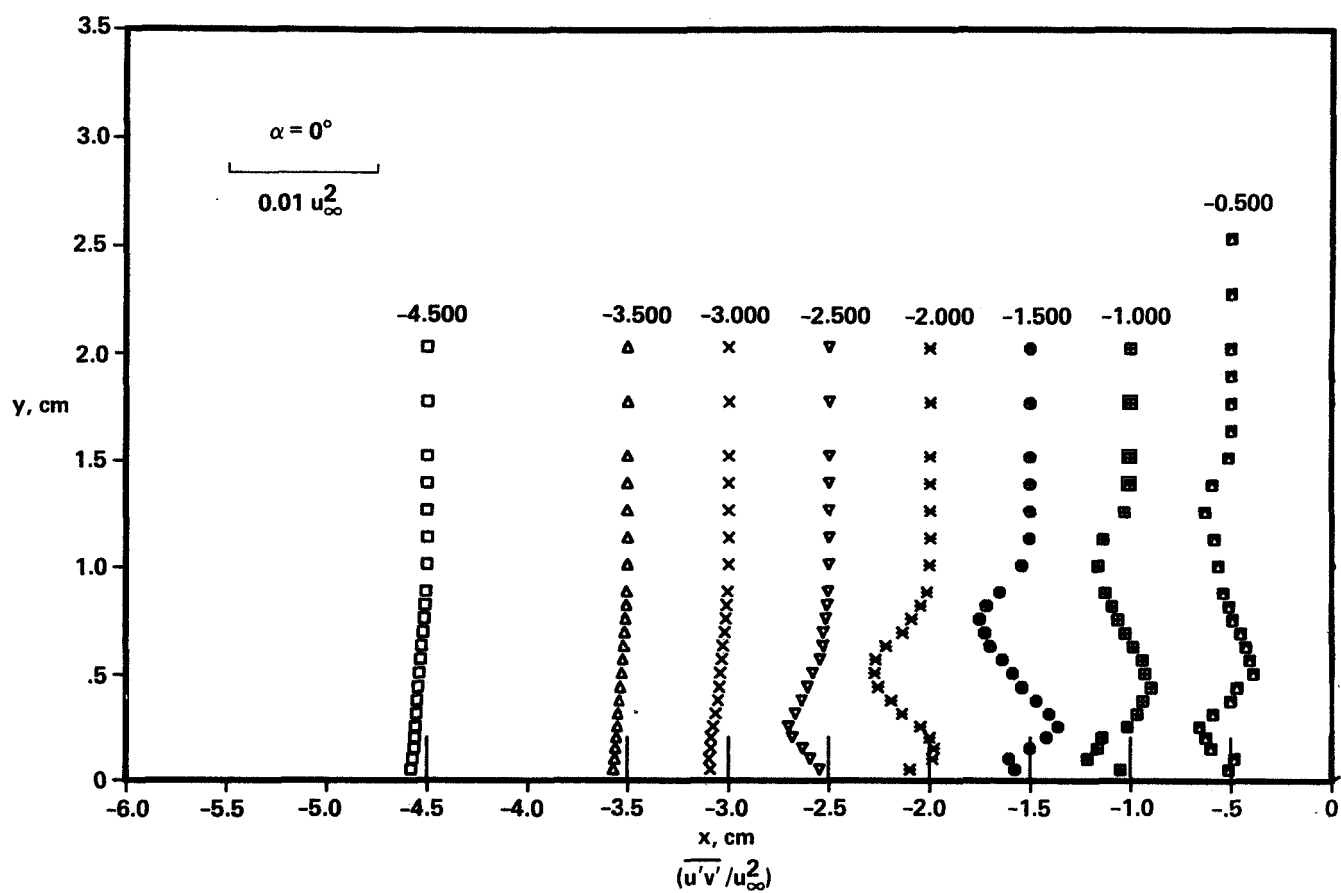


Figure 20.- Reynolds shear stress profiles, $\alpha = 0$.

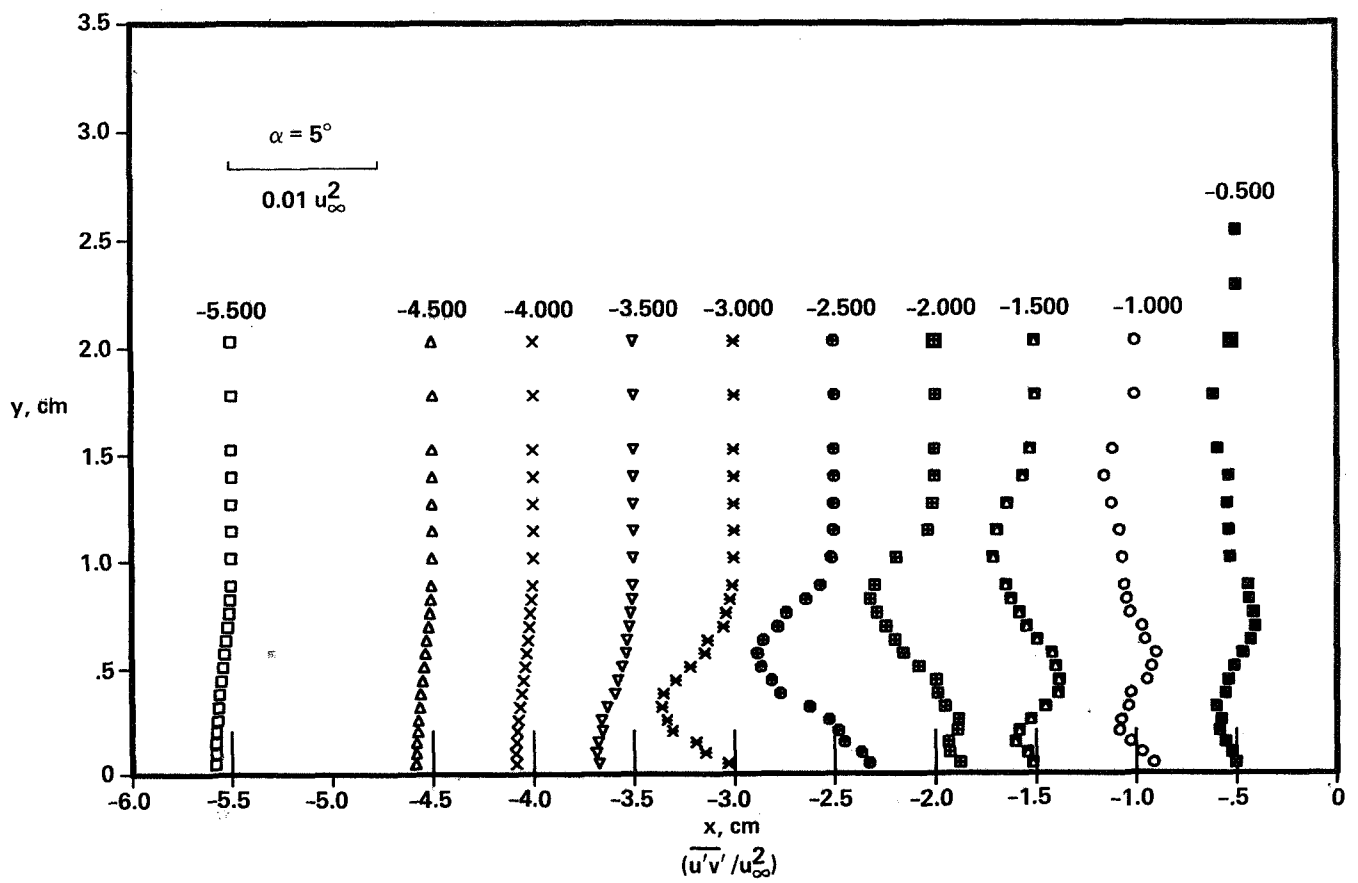


Figure 21.- Reynolds shear stress profiles, $\alpha = 5$.

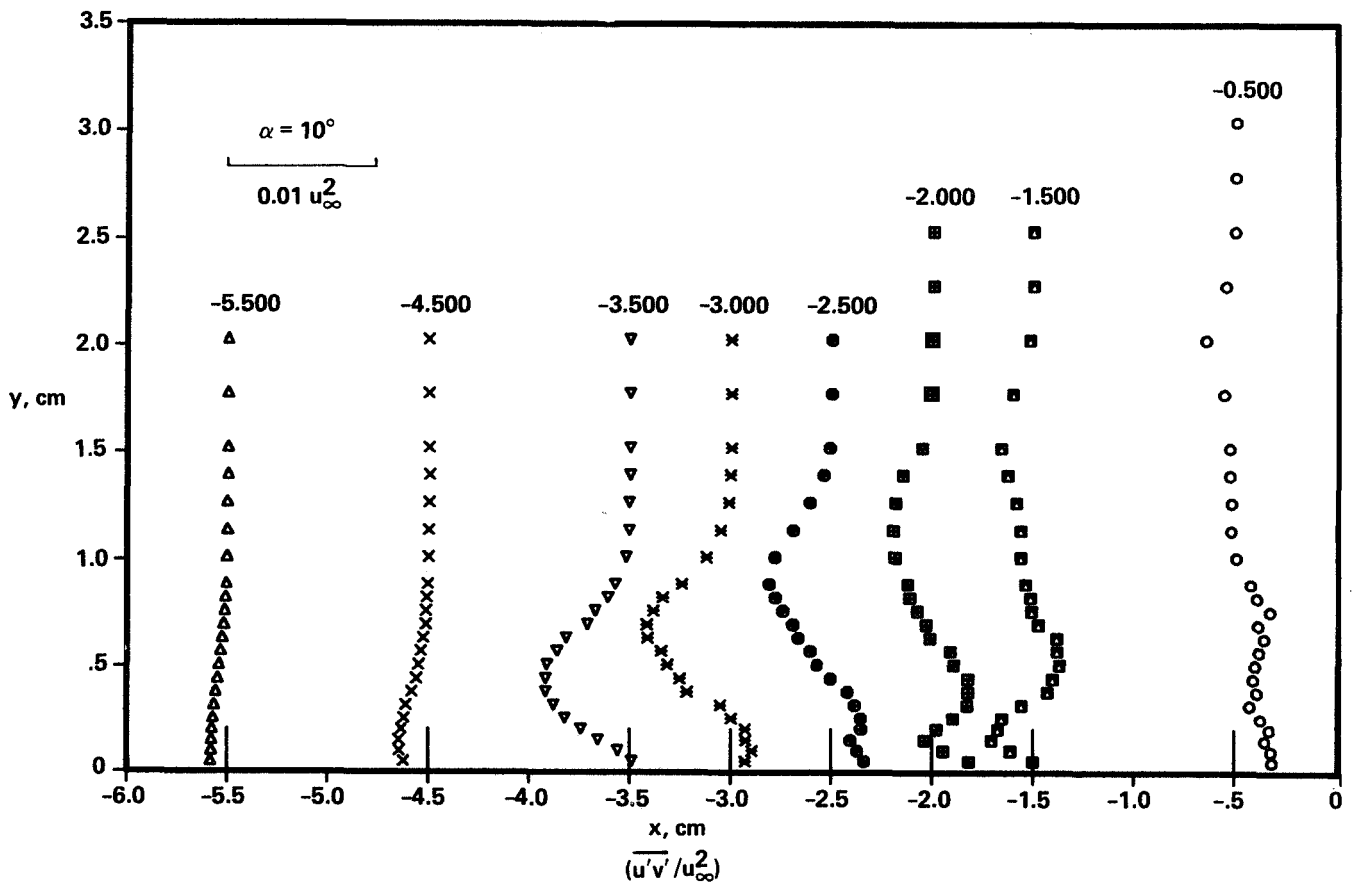


Figure 22.- Reynolds shear stress profiles, $\alpha = 10^\circ$.

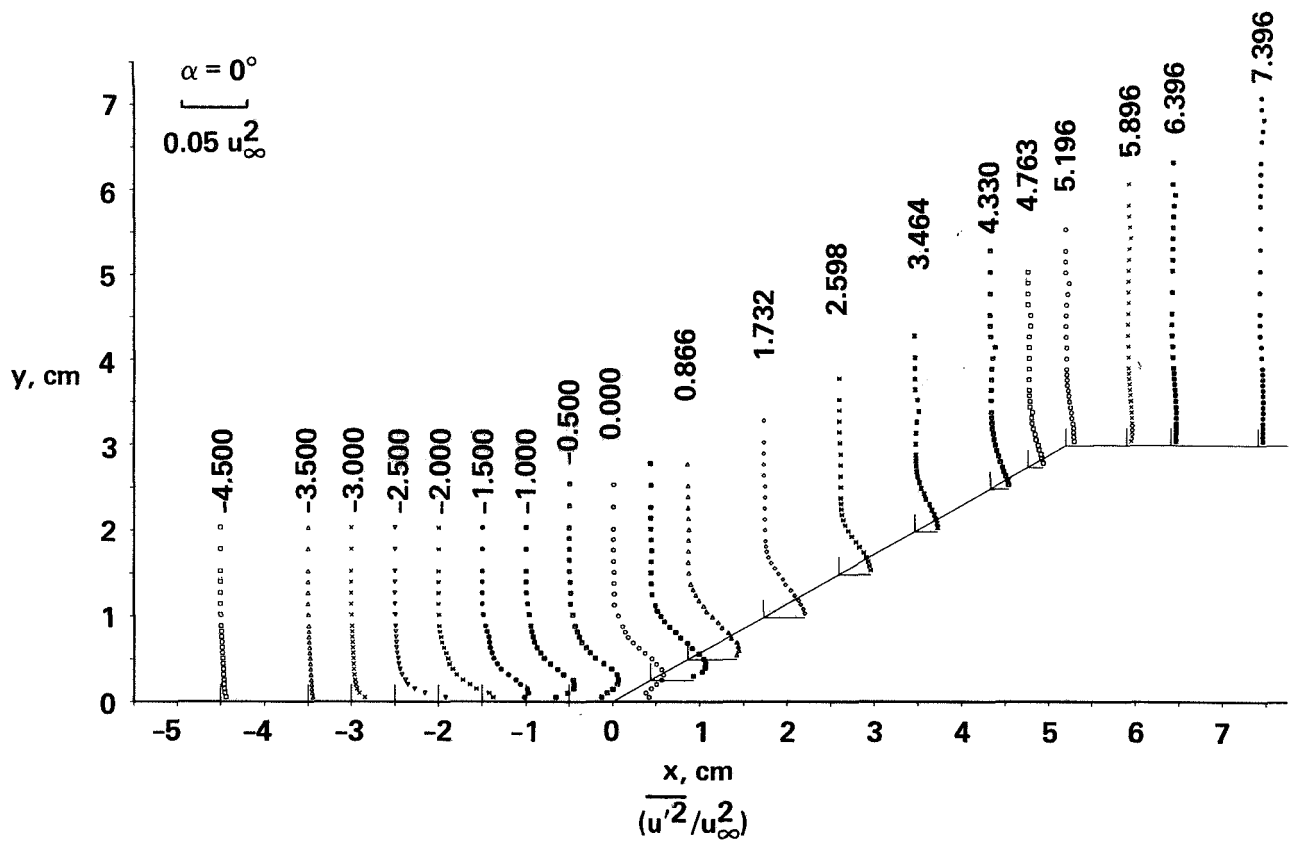


Figure 23.- Streamwise normal stress profiles, $\alpha = 0$.

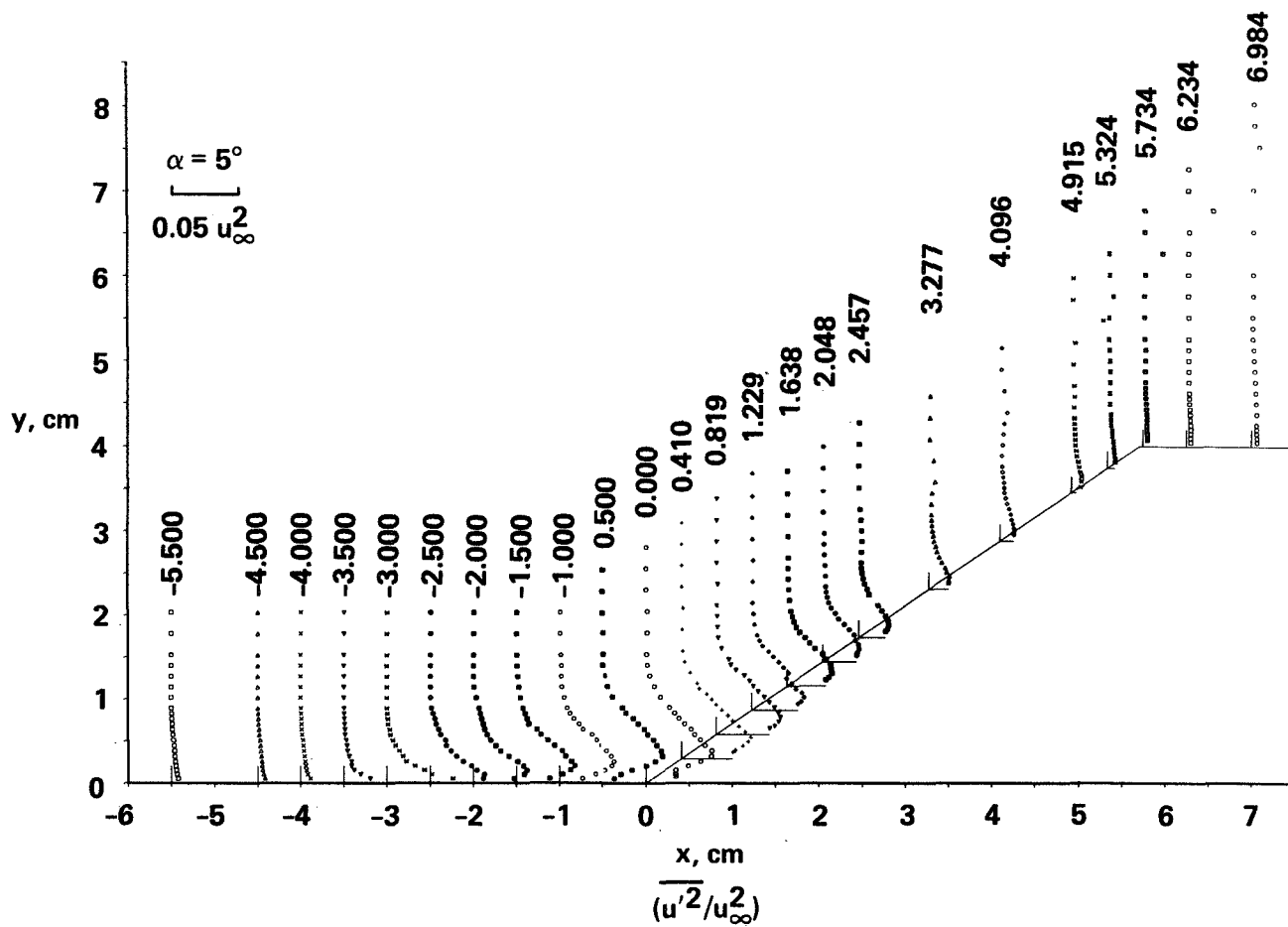


Figure 24.- Streamwise normal stress profiles, $\alpha = 5$.

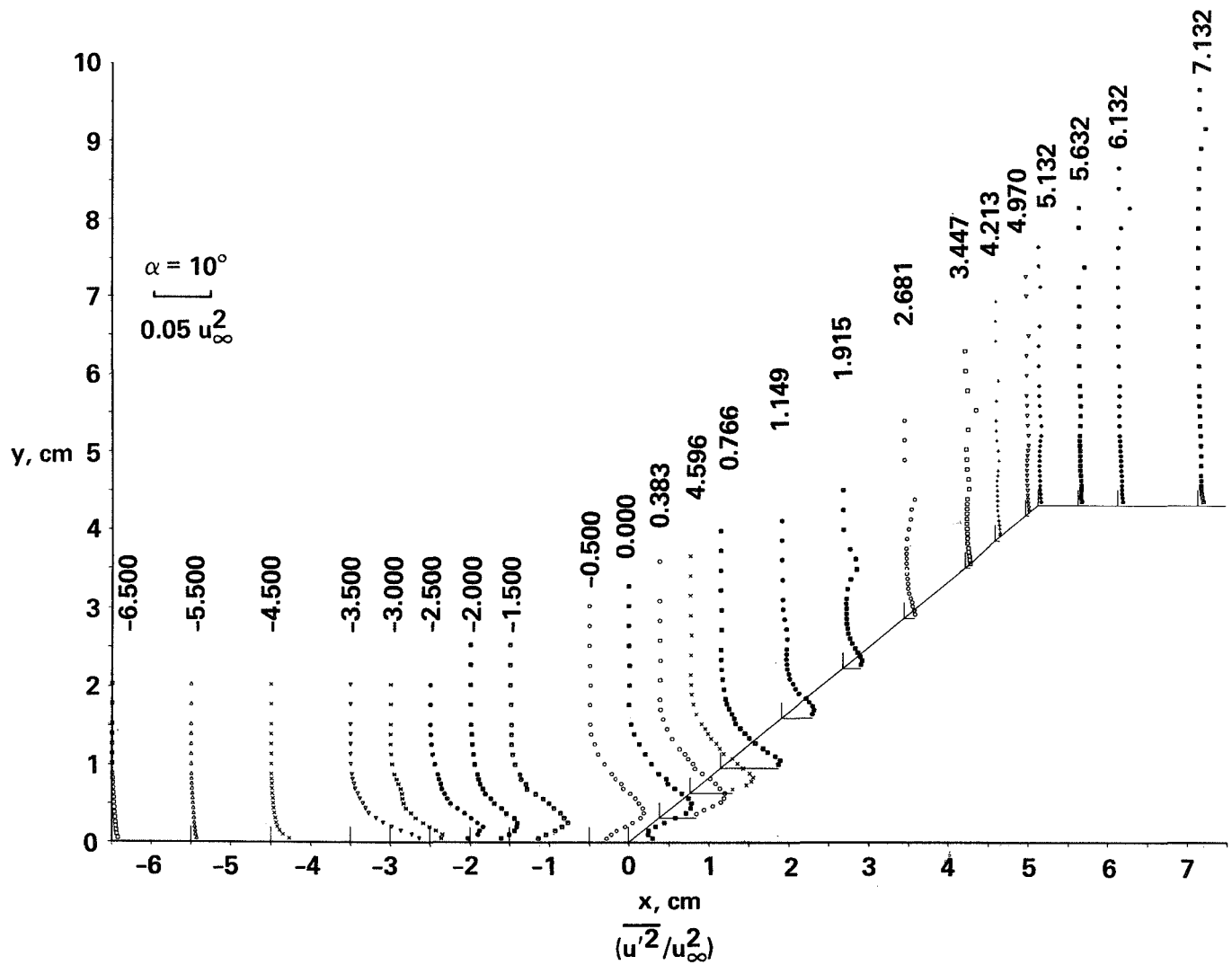


Figure 25.- Streamwise normal stress profiles, $\alpha = 10$.

C-2

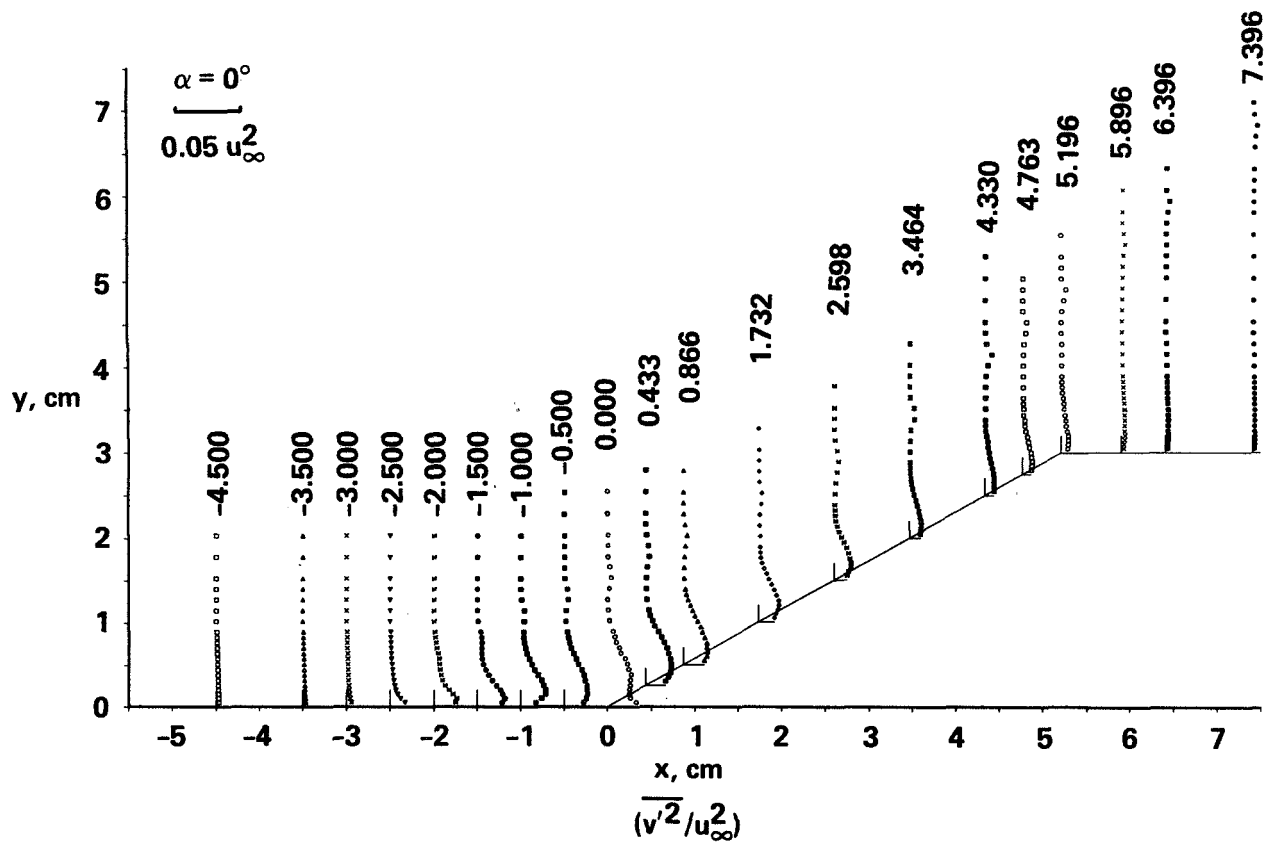


Figure 26.- Vertical normal stress profiles, $\alpha = 0$.

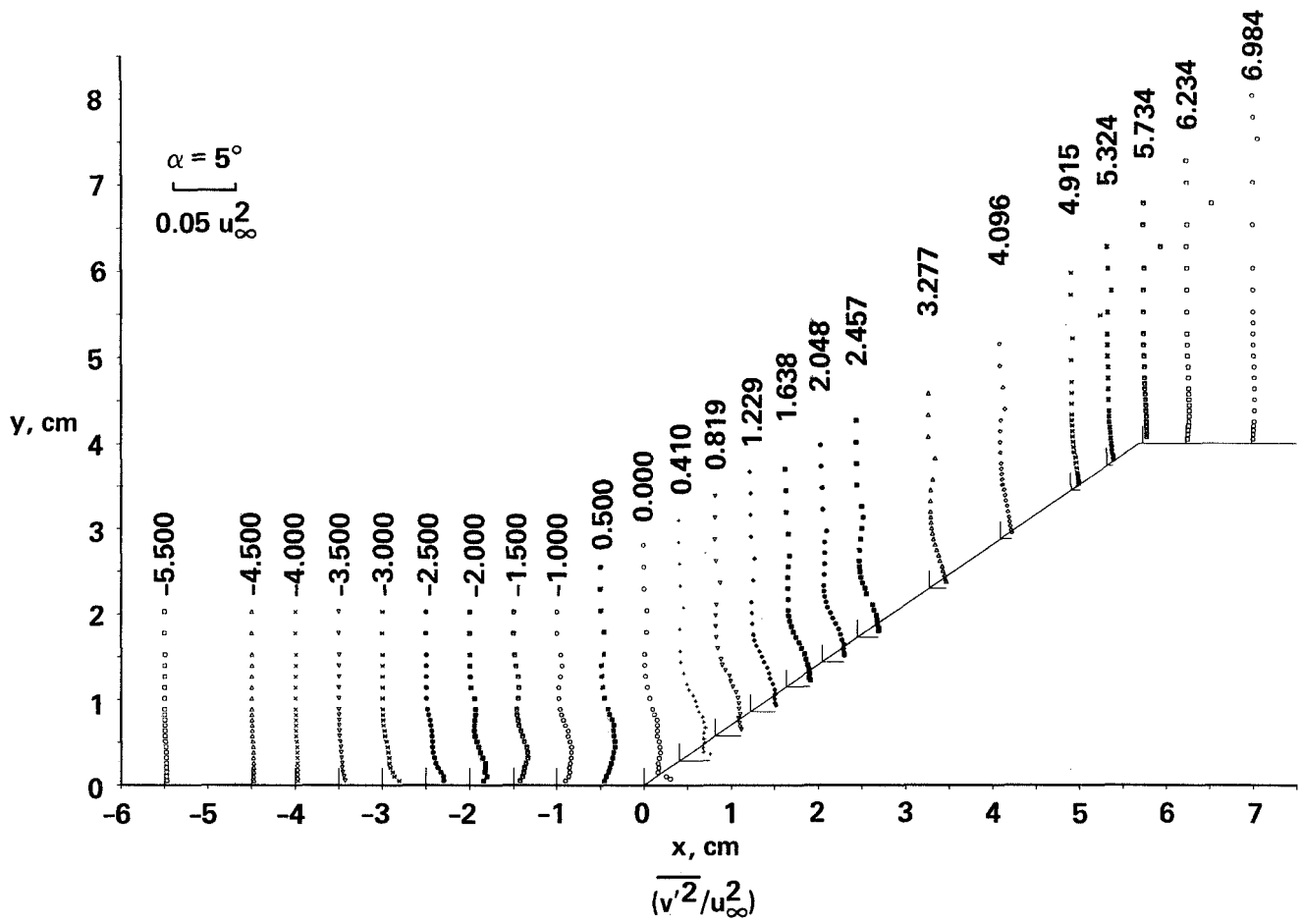


Figure 27.- Vertical normal stress profiles, $\alpha = 5$.

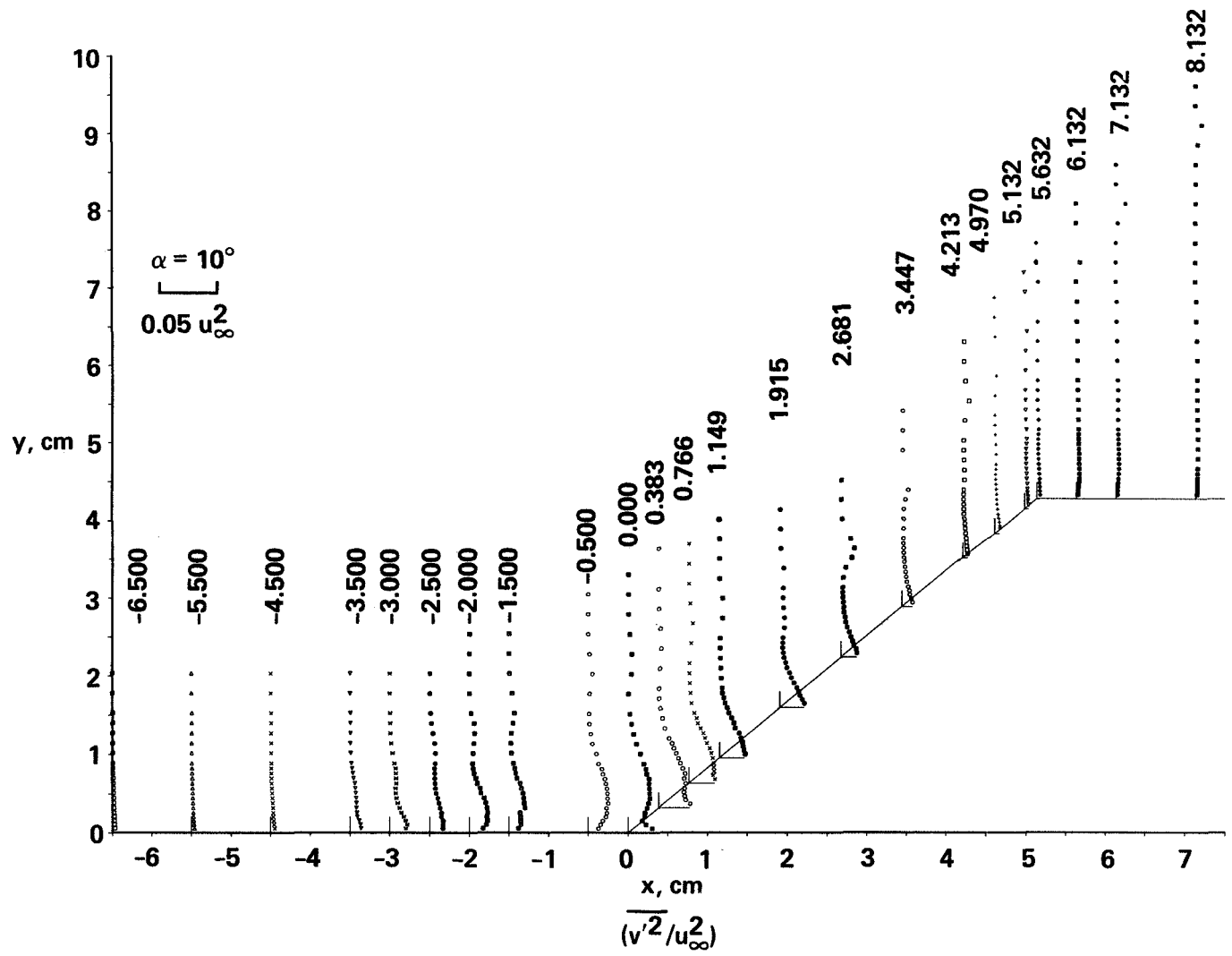


Figure 28.- Vertical normal stress profiles, $\alpha = 10$.

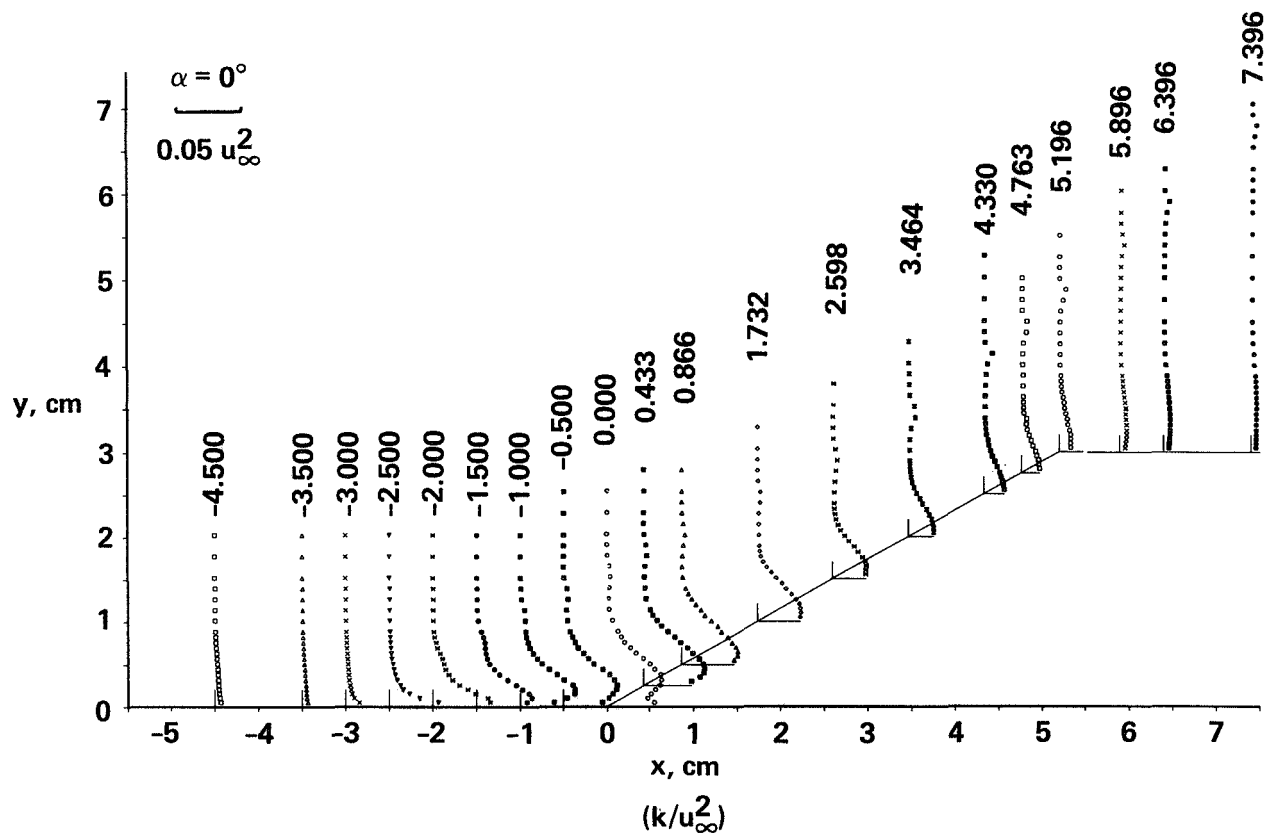


Figure 29.- Turbulent kinetic energy profiles, $\alpha = 0$.

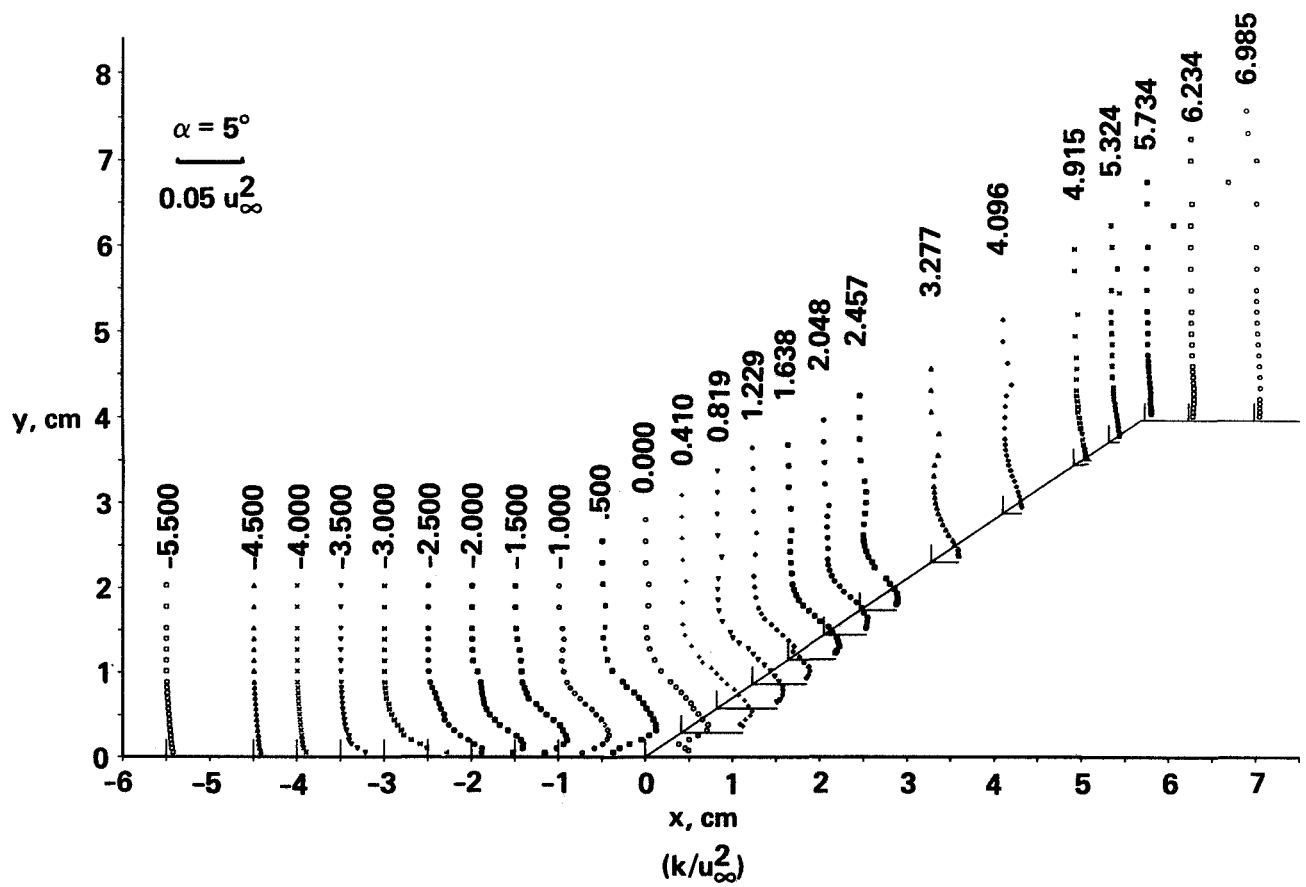


Figure 30.- Turbulent kinetic energy profiles, $\alpha = 5$.

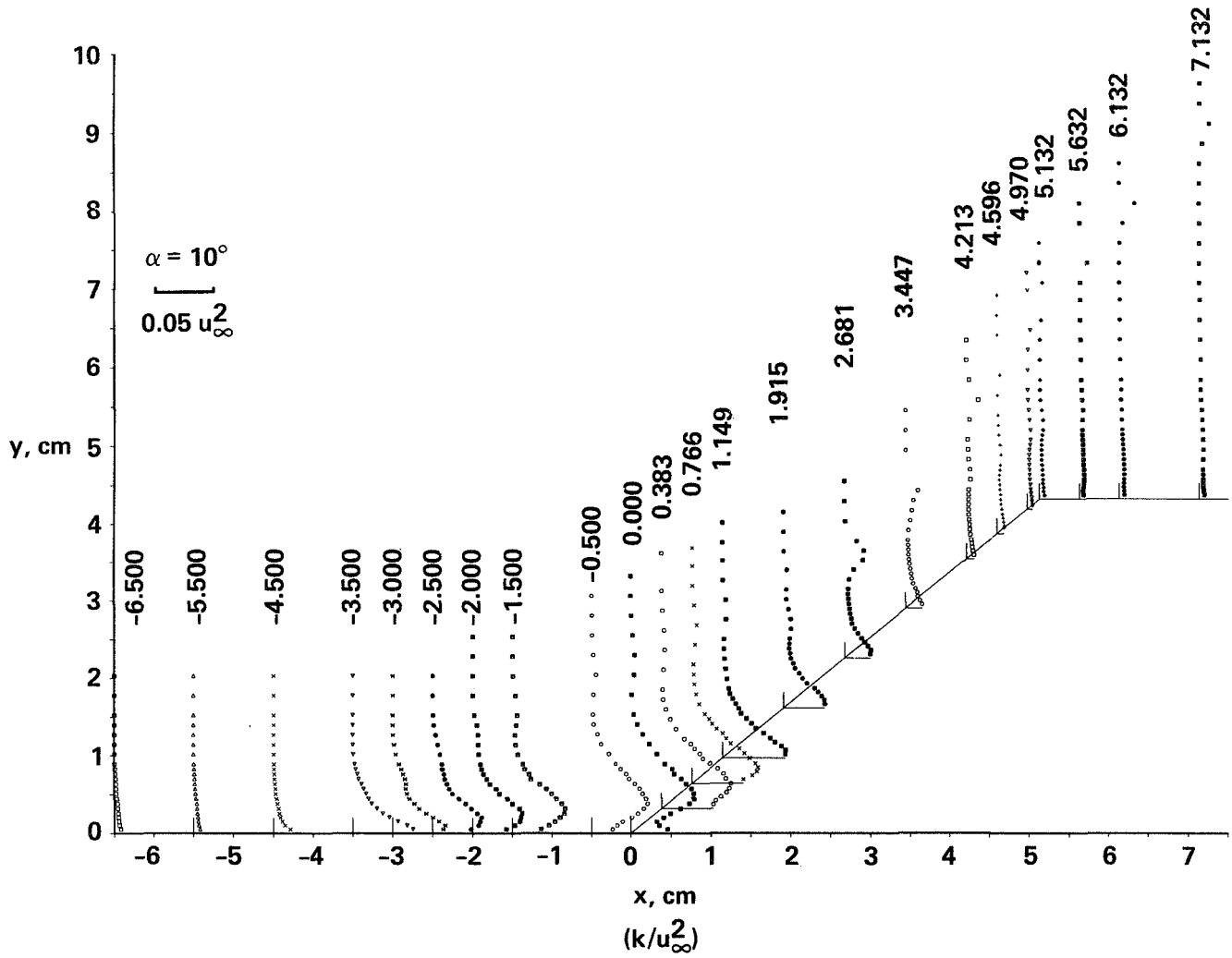


Figure 31.- Turbulent kinetic energy profiles, $\alpha = 10$.

Report Documentation Page

1. Report No. NASA TM-101008		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle A Documentation of Two- and Three-Dimensional Shock-Separated Turbulent Boundary Layers				5. Report Date July 1988	
				6. Performing Organization Code	
7. Author(s) J. D. Brown, J. L. Brown, and M. I. Kussoy				8. Performing Organization Report No. A-88211	
				10. Work Unit No. 505-60-11	
9. Performing Organization Name and Address Ames Research Center Moffett Field, CA 94035				11. Contract or Grant No.	
				13. Type of Report and Period Covered Technical Memorandum	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, DC 20546-0001				14. Sponsoring Agency Code	
15. Supplementary Notes Point of Contact: J. L. Brown, Ames Research Center, MS 299-1, Moffett Field, CA 94035 (415)694-6192 or FTS 464-6192					
16. Abstract A shock-related separation of a turbulent boundary layer has been studied and documented. The flow was that of an axisymmetric turbulent boundary layer over a 5.02-cm-diam cylinder that was aligned with the wind tunnel axis. The boundary layer was compressed by a 30° half-angle conical flare, with the cone axis inclined at an angle α to the cylinder axis. Nominal test conditions were $P_t = 1.7$ atm and $M_\infty = 2.85$. Measurements were confined to the upper-symmetry, $\phi = 0^\circ$, plane. Data are presented for the cases of alpha equal to 0°, 5°, and 10° and include mean surface pressures, streamwise and normal mean velocities, kinematic turbulent stresses and kinetic energies, as well as reverse-flow intermittencies. All data are given in tabular form; pressures, streamwise velocities, turbulent shear stresses, and kinetic energies are also presented graphically.					
17. Key Words (Suggested by Author(s)) Turbulence Shock wave/boundary layer Boundary layer interaction Shock wave Separation			18. Distribution Statement Unclassified - Unlimited Subject category - 34		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of pages 103	
				22. Price A06	